MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

AGENCIA ESTATAL DE INVESTIGACIÓN

CV date	14/12/2020

Part A. PERSONAL INFORMATION

First and Family name	Máximo Ibo GALINDO OROZCO	
Researcher codes	WoS Researcher ID *(*)*	A-5299-2010
	SCOPUS Author ID*(*)*	7006443930
	Open Researcher and Contributor ID (ORCID) **	0000-0001-8448-9760

(*) At least one of these is mandatory
(**) Mandatory

A.1. Current position

Name of University/Institution	Universitat Politècnica de València			
Department	Departamento de Biotecnología			
Address and Country	Edificio 3J, Camino de Vera, s/n 46022 Valencia, Spain			
Phone number	963 87 74 20	E-mail	igalindo@cipf.es	
Current position	Profesor Titular de Universidad		From	15/02/2019
Key words	Drosophila, developmental biology, disease models			

A.2. Education

Degree	University	Year
Degree in Biology	Universitat de València	1990
PhD in Biology	Universitat de València	1996

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

6-year research periods (sexenios): 3, last one awarded in 2017.

Research work supervision:

2 PhD theses supervised, 1PhD thesis in progress

Supervision of 12 Master's theses (TFM)

Supervision of 14 Final year projects (TFG)

Publications and citations in the last five years

4 publications in 1st quartile.

Citations: (Web of Science)

Year	**2015**	**2016**	**2017**	**2018**	**2019**	**Total (average)**
Citations	45	44	48	58	35	**230 (46)**

Other indicators

h-index:14
Publications: 22 (18 in Q1, 9 in D1)

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

I did my doctoral thesis in the Department of Genetics of the University of Valencia, in the field of transposon genetics. In 1997, I started my postdoctoral stay in the United Kingdom, first at Royal Holloway College, University of London, as a Marie Curie fellow; and at the end of 1999 I moved to the University of Sussex as Wellcome Trust Postdoctoral Research Fellow in the laboratory of Dr. Juan Pablo Couso. In this postdoctoral period, I studied the establishment of the proximal-distal axis in the extremities, using the *Drosophila* leg as a model. I contributed

to the identification of new genes involved in this process (*rotund*, *apterous*, *dlim1*, *tarsal-less*), and demonstrated the implication of known cellular signaling pathways (EGFR) and proposed a model for the leg development integrating all the novel genes and proteins. I published this model in as a first author in a paper in Science. The identification of *tarsal-less*, published in PLoS Biology was also of great interest, since it broke two paradigms in eukaryotic genes; It was polycistronic and encoded for very small peptides of only 11 amino acids. This work pioneered the discovery of genes encoding small-sized peptides (small Open Reading Frame or smORF genes), a topic of growing interest in biology.

In 2008 I returned to Spain as a Ramon y Cajal fellow at the Institute of Biomedicine of Valencia (IBV-CSIC), where I established my own independent research, studying the relationship between planar polarity and Notch signaling. The results of this research, in collaboration with Dr. Sarah Bray (University of Cambridge) unravelled the mechanism by which the Dsh protein controls Notch signaling. In parallel, and in collaboration with Professor Francesc Palau of the IBV-CSIC, I began to study the pathophysiology of hereditary diseases of the peripheral nervous system and to develop models in *Drosophila* to study these pathologies. In 2015 we published the first model in *Drosophila* for the Charcot-Marie-Tooth (CMT) neuropathy caused by mutations in the *GDAP1* gene, and in 2017 we published another work in which we relate neuropathies with mitochondrial involvement with metabolic alterations caused by dysregulation of the insulin signaling pathway.

Since February 2013, I am the group leader of the Laboratory of Developmental Biology and Disease Models at the Prince Felipe Research Center (CIPF). In January 2016 I joined the Polytechnic University of Valencia (UPV), and since 2019 I am Associate Professor (Profesor Titular). I am the coordinator of the UPV-CIPF Joint Research Unit “Nanomedicine and Disease Mechanisms”, so I teach at the UPV and maintain my research activity at the CIPF.

My group continues to study the CMT model for mutations in *GDAP1*, with a project funded by the French AFM-Telethon Foundation to introduce clinical mutations of *GDAP1* in *Drosophila* to identify biomarkers and for their use as tools in drug screening. We are also interested in the study of metabolic alterations caused by defects in mitochondrial dynamics and their relationship with aging.

In 2016, we started a collaboration with the ApoyoDravet patients association, to develop personalized models of Dravet syndrome a severe rare infantile epileptic syndrome. The results we have obtained constitute the basis of the present application.

Part C. RELEVANT MERITS

C.1. Publications (from 2010)

Journal articles

Espinós, C.; Galindo, M.I.; García-Gimeno, M.A.; Ibáñez-Cabellos, J.S.; Martínez-Rubio, D.; Millán, J.M; Rodrigo, R.; Sanz, P.; Seco-Cervera, M.; Sevilla, T.; Tapia, A.; Pallardó, F.V. (**2020**) Oxidative Stress, a Crossroad Between Rare Diseases and Neurodegeneration. **Antioxidants** 15;9(4):E313. doi: 10.3390/antiox9040313.

Calpena, E.; López del Amo V.; Chakraborty, M.; Llamusí, B; Artero, R; Espinós, C; Galindo, M.I. (**2018**). The *Drosophila junctophilin* gene is functionally equivalent to its four mammalian counterparts and is a modifier of a Huntingtin poly-Q expansion and the Notch pathway. **Disease Models and Mechanisms** 11(1): dmm029082. doi: 10.1242/dmm.029082**.**

López del Amo V.; Palomino-Schätzlein, M.; Seco-Cervera M.; García-Giménez, J.L.; Pallardó, F.V.; Pineda-Lucena, A.; Galindo, M.I. (**2017**). A *Drosophila* model of *GDAP1* function reveals the involvement of insulin signalling in the mitochondria-dependent neuromuscular degeneration. **Biochimica et Biophysica Acta** 1863:801–809 (DOI: 10.1016/j.bbadis.2017.01.003).

López del Amo V.; Seco-Cervera M.; García-Giménez, J.L.; Whitworth, A.J.; Pallardó, F.V.; Galindo, M.I. (**2015**). Mitochondrial defects and neuromuscular degeneration caused by

altered expression of Drosophila Gdap1: implications for the Charcot–Marie–Tooth neuropathy. **Hum Mol Genet** 24, 21-36.

Calpena, E.; Palau, F.; Espinós, C; Galindo, M.I. (**2015**). Evolutionary history of the *Smyd* gene family in metazoans: a framework to identify the orthologs of human *Smyd* genes in *Drosophila* and other animal species. **PLOS One** (DOI: 10.1371/journal.pone.0134106).

Capilla, A., Johnson, R., Daniels, M., Benavente, M, Bray, S.J. and Galindo, M.I. (**2012**). Planar cell polarity controls directional Notch signaling in the *Drosophila* leg. **Development**, 139, 2584-2593.

Galindo, M.I., Fernández-Garza, D., Phillips, R., Couso, J.P. (**2011**). Control of *Distal-less* expression in the *Drosophila* appendages by functional 3' enhancers. **Developmental biology**, 353: 396-410

Céspedes, M.A., Galindo, M.I., Couso, J.P. (**2010**) Dioxin toxicity in vivo results from an increase in the dioxin-independent transcriptional activity of the aryl hydrocarbon receptor. **PloS one**, 5: e15382

Book chapters

Fazzari, P., Rodriguez-Prieto, A. Galindo, M.I. Disease Models in Neurodevelopmental Disorders. In “Diagnosis, Management and Modelling of Neurodevelopmental Disorders: The Neuroscience of Development”, edited by Colin Martin, Victor R. Preedy, and Rajkumar Rajendram. Academic Press (***in press***)

Tapia, A., López del Amo, V. Galindo, M.I. *Drosophila* models of neuronal aging. In “Assessments, Treatments and Modelling in Aging and Neurological Disease: The Neuroscience of Aging”, edited by Colin Martin, Victor R. Preedy, and Rajkumar Rajendram. Academic Press (***in press***)

C.2. Research projects and grants

Title: De genes a tratamientos en enfermedades raras neurodegenerativas y neuromusculares (PROMETEU/2018/135)
Funding Agency: programa Prometeo para grupos de investigación de excelencia, Conselleria d'Educació, Investigació, Cultura iEsport de la Generalitat Valenciana.
Duration: from 2018 to 2021
Amount: 62.101.2 € (total consortium 310.506,27 €)
Principal Investigator: Federico Pallardó Calatayud.

Title: Generación de modelos en *Drosophila melanogaster* mediante *knock-in* de mutaciones de pacientes.
Funding Agency: Asociación ApoyoDravet.
Duration from October 2016 to September 2021
Amount: 156.400 €
Principal Investigator: Máximo Ibo Galindo Orozco.

Title: Estudio metabolómico de rutas bioquímicas implicadas en Charcot-Marie-Tooth (MET4CMT)
Funding Agency: Universitat Politècnica de València, IIS La Fe.
Duration: 2018
Amount: 4.500 €
Principal Investigator: Máximo Ibo Galindo Orozco y Antonio Pineda Lucena.
Número de investigadores participantes: 4

Title: Metabolic and functional characterization of clinically relevant Charcot-Marie-Tooth genotypes in a Drosophila model (18540).
Funding Agency: Association Française contre les Myopathies (AFM-Telethon)
Duration: from May 2015 to September 2017.

Amount: 78.000 €
Principal Investigator: Máximo Ibo Galindo Orozco.

Title: Translational Research, Experimental Medicine And Therapeutics on Charcot-Marie-Tooth Disease (IR11-TREAT-CMT).
Funding Agency: Instituto de Salud Carlos III
Duration: from 2012 to 2015.
Amount: partner 12: 231.800 € (global 3.084.664 €)
Principal Investigator: partner 12, Máximo Ibo Galindo Orozco. Coord. Francesc Palau.

Title: Polaridad celular plana y señalización por Notch (BFU2009-07949)
Funding Agency: Plan Nacional de I+D+i, subprograma BMC
Entidades participantes: Instituto de Biomedicina de Valencia, CSIC.
Duration: from 2010 to 2012
Amount: 145.200 €
Principal Investigator: Máximo Ibo Galindo Orozco.

C.3. Contracts

Title: Utilización de *Drosophila melanogaster* como sistema de cribado
Partner: Biomar Microbial Technologies S.L.
Duration: 2018
Amount: 13.150 €
Principal Investigator: Máximo Ibo Galindo Orozco.

Title: Generación de modelos en *Drosophila melanogaster* mediante *knock-in* de mutaciones de pacientes.
Partner: INDACEA, crowdfunding and Research support platform.
Duration: desde abril 2016 hasta diciembre 2017
Amount: 5.000 €
Principal Investigator: Máximo Ibo Galindo Orozco.

C.4, Fellowships and honors

PhD Studentship from Generalitat Valenciana

Postdoctoral Marie Curie fellowship from the European Commission.

Ramón y Cajal fellowship (junior principal investigator, 2007 call.

Accredited by Programa I3 (outstanding performance for Ramón y Cajal fellows)

C.5, Activity as scientific reviewer

Reviewer for scientific publications: The FASEB Journal, Disease Models and Mechanisms, FEBS letters, Biochimica et Biophysica acta, Developmental Biology, PLOS ONE, BioMed Research International, International Journal of Nanomedicine, GigaScience, Journal of Experimental Neuroscience, Comparative Biochemistry and Physiology, Oxidative Medicine and Cellular Longevity, Molecular Genetics and Genomics, Genetica, Biomolecules, IBRO Reports, Molecular Neurodegeneration, Genomics. **Full profile in https://publons.com/author/1332455/maximo-ibo-galindo**

Reviewer for evaluation and funding agencies: ANEP (Spanish National Evaluation Agency), Research Foundation Flanders (Belgium), Narodowe Centrum Nauki (Polish National Research Agency), AFM-Telethon (France), Junta de Andalucía, Telemaratón RTVE, Universidad de Oviedo.