

<b>Part A. PERSONAL INFORMATION</b>		<b>CV date</b>		30/10/2019
First and Family name	Ignacio Monedero Cobeta			
Social Security, Passport, ID number	53406294H	Age	36	
Researcher numbers	Researcher ID	G-4858-2015		
	Orcid code	https://orcid.org/0000-0001-6370-0467		

**A.1. Current position**

Name of University/Institution	Universidad Autónoma de Madrid		
Department	Fisiología		
Address and Country	Ciudad Universitaria Cantoblanco 28049, Madrid Spain		
Phone number	+34623174314	E-mail	
Current position	Assistant Professor	From	10/09/2018
Espec. cód. UNESCO			
Palabras clave			

**A.2. Education**

PhD	University	Year
Genetics and Cell Biology	Universidad Autónoma de Madrid	2014

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

Cites: 52, cites/year (5 years): 5.8, Research articles Q1: 6, h-Index: 5 (WOS).

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

I formalized my studies in the pre-bologna degree of Biology at the Universidad Autónoma de Madrid where I began to do my first tasks of teaching help, as well as to participate in the research project developed by the laboratory of Dr. Laura Torroja of the study of the mechanisms of neurodegeneration in Alzheimer's disease, thanks to a collaboration grant. I did my doctoral thesis " Study of the Brr2 gene in the neuronal specification of *Drosophila melanogaster*" obtaining an excellent qualification of "cum laude", with Jonathan Benito-Sipos and Laura Torroja as supervisors. During this period I was hired as teaching assistant at Department of Biology, at the Universidad Autónoma de Madrid.

Along the period of my thesis I had the opportunity to develop my teaching skills as well as specialize in image processing and image analysis in biomedical sciences, which has allowed me to collaborate and develop different courses aimed at undergraduate and graduate students in that subject. This courses were developed both in Spain and during my stay abroad periods in foreign centers. Among others, I would like to highlight the collaboration with the group of Dr. Soñez at the Universidad Nacional de Río Cuarto, Argentina; and collaboration with Dr. Schrenck's group, Nijmegen Medical Center (Radboud University), Netherlands. Both collaborations had excellent results as research scientific articles in Biotechnic & Histochemistry (DOI: 10.3109 / 10520295.2013.846478), PLOS Computational Biology (DOI: 10.1371 / journal.pcbi.1004823) or JOVE (DOI: 10.3791 / 55395) among others.

After my thesis, I was working as postdoctoral researcher for four years (until August 2018) in Linköping University, Sweden (Department of Clinical and Experimental Medicine). My research continued focus on developmental and molecular biology, specifically on proliferation control factors exerted by the Hox genes on neuronal progenitors using as animal model fly (*Drosophila melanogaster*) and mouse (*Mus Musculus*). I also continued collaborating with other research groups developing and applying new techniques for image analysis. The result

of this postdoctoral period led to recent publications in Q1 journals as *Current Biology* (DOI: 10.1016 / j.cub.2017.03.023), *PLOS ONE* (DOI: 10.1371 /journal.pone. 0177541) and *Development* (DOI:10.1242/dev.160747).

The techniques I am most familiar with are, among others: dissection of *Drosophila* (stage 9 - adult), mouse dissection (embryo 10.5- adult), extraction of RNA and DNA, section in cryostat, section in microtome, immunohistochemistry, confocal microscopy, microinjection (EdU), in situ hybridization, image analysis (morphometry and densitometry), RNAseq analysis, statistical analysis.

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

1. **Ignacio Monedero Cobeta**; Caroline Bivik Stadler; Jin Li, Peng Yu; Stefan Thor; Jonathan Benito-sipos. (2018) *Specification of Drosophila neuropeptidergic neurons by the splicing component brr2*. *PLOS Genetics* 14(8) e1007496
2. Behzad Yaghmaeian Salamani, **Ignacio Monedero Cobeta**; Jonathan Rakar; Jesús Rodríguez Curt, Susanne Bauer, Annika Starkenberg; Stefan Thor. (2018) *Evolutionary conserved anterior expansion of the central nervous system promoted by a common PcG-Hox program*. *Development*. 145 (7)
3. Begona Lopez Arias; Enrique Turiegano Marcos; **Ignacio Monedero Cobeta**; Laura Torroja Fungairino. (2017) *The Drosophila adult neuromuscular junction as a model for unravelling amyloid peptide influence on synapse dynamics* (Review). *Neural Regeneration Research*. 12-12
4. **Ignacio Monedero Cobeta**; Behzad Yaghmaeian Salamani; Stefan Thor. (2017) *Anterior-Posterior Gradient in Neural Stem and Daughter Cell Proliferation Governed By Spatial and Temporal Hox Control*. *Current Biology*. 27, pp.1161 - 1172.
5. Begona Lopez Arias; Enrique Turiegano Marcos; **Ignacio Monedero Cobeta**; Inmaculada Canal Beltrán; Laura Torroja Fungairino (2017). *Presynaptic AB-40 prevents synapse addition in the adult Drosophila neuromuscular junction*. *PLOS ONE*. 12
6. Anna Castells Nobau; Bonnie Nijhof; Ilse Eidhof; Louis Wolf; Jolanda M. Scheffer-de Gooyert; **Ignacio Monedero Cobeta**; Laura Torroja Fungairino; Jeroen Van der Laak; Annette Schenck. (2017) *Two algorithms for high-throughput and multi-parametric quantification of drosophila neuromuscular junction morphometry*. *Journal of visualized experiments (JoVE)*. 123
7. Bonnie Nijhof; Anna Castells-Nobau; Louis Wolf; Jolanda M. Scheffer-de Gooyert; **Ignacio Monedero**; Laura Torroja; Lluís Coromina; Jeroen A. W. M. van der Laak; Annette Schenck. (2016) *A New Fiji-Based Algorithm That Systematically Quantifies Nine Synaptic Parameters Provides Insights into Drosophila NMJ Morphometry*. *PLOS Computational Biology*. 12 - 3
8. L. N. Giordana; A. A. Bozzo; D. S. Cots; **I. Monedero Cobeta**; A. Rolando; D. Borghi; T. Diaz; H. F. Gauna; M. C. Romanini. (2014) *The effect of chronic stress on prenatal development of the central nervous system*. *Biotechnic & Histochemistry*. 90 - 2, pp. 146 - 151.
9. Hugo Gabilondo; Maria Losada-Perez; **Ignacio Monedero**; Arturo Torres-Herraez; Isabel Molina; Laura Torroja; Jonathan Benito-Sipos. (2014) *A new role of Klumpfuss in establishing cell fate during the GMC asymmetric cell division*. *Cell and Tissue Research*. 358 - 2, pp. 621 - 626.
10. A. A. Bozzo; C. A. Sonez; **I. Monedero Cobeta**; A. Rolando; M. C. Romanini; D. Cots; M.A. Lazarte; H. F. Gauna; M. T. Mugnaini. (2013) *Chronic stress and its effects on*

*adrenal cortex apoptosis in pregnant rats*. Biotechnic & Histochemistry. 89 - 4, pp. 296 - 303.

## **C.2. Research projects and grants**

1. RTI2018-097504-B-I00, *Novel antioxidant ingredients from coffee and cocoa by-products as a strategy to reprogram cardiometabolic disease through lactation (COCARDIOLAC)*. MICINN. IP. Silvia Arribas. 2018-2022. 105.270 €. Researcher.
2. 621-2013-5258, *Mechanisms Controlling Cell Numbers in the Developing Nervous System*. Swedish Research Council (VR-NT). Stefan Thor. (Linköping University). 2014-2016. 259.575 €. Researcher.
3. 120531, *Proliferation Control in the Developing Drosophila Nervous System*. Swedish cancer foundation. Stefan Thor. (Linköping University). 2012-2014. 381.808 €. Researcher.
4. BFU2008-04683-C02-02/BCM, *Specification of neuronal identities in the Drosophila central nervous system*. MICINN. Laura Torroja Fungairiño. (Universidad Autónoma de Madrid). 12/2009-12/2010. 75.000 €. Researcher.
5. *Synaptic restoration: a new strategy in Alzheimer's disease. Subproject III: Neural effects of  $\beta$ -amyloid peptide in Drosophila*. Fundación CIEN. Alberto Ferrus. (Universidad Autónoma de Madrid). 10/2008-10/2009. 64.836 €. Researcher.

## **C.3. Contracts**

1. Universidad Autónoma de Madrid Assistant Professor (Start date 10/09/2018)
2. Linköping University Postdoctor (Start date 15/02/2017)
3. Linköping University Principal Research Engineer (Start date 15/08/2016)
4. Linköping University Grant-assisted Postdoctoral Student (Start date 15/06/2014)
5. Universidad Autónoma de Madrid Teaching Assistant (Start date 09/03/2009)
6. Fundación CIEN Predoctoral Researcher (Start date 15/11/2008)

## **C.4. Patents**

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