

I completed my undergraduated studies at Pharmacy's faculty of the University of Seville. That same year, I joined the *Centro de Biología Molecular "Severo Ochoa"* to carry out my doctoral thesis under supervision of PhD professor Fernando Valdivieso. The field of my research was Familial Alzheimer Disease, and more specifically, the impact of ageing oxidative stress and mutations in amyloid precursor protein gene on neuronal cell survival and metabolism/processing of the amyloid precursor protein. For my postdoc, I sought for a group that allowed me to get involved in the field of neuronal apoptosis and its implications in neurodegenerative diseases. Thus, in 2011, I started my work in the *Hospital Nacional de Paraplégicos*, in the *Neuroprotección Molecular* group (GNPM). My research is focused in the characterization of autophagy pathway and its implication in cell death/survival, in the different cell types of the spinal cord after injury (SCI). The study is being carried out using a mice model of contusive spinal cord injury. Nowadays, I am trying to determine the role of autophagy in the degenerative processes that occur during secondary damage after spinal cord injury. This knowledge will allow us to develop new pharmacological therapies to prevent the spread of the damage, and also could be applied in other neurodegenerative diseases - Alzheimer, Parkinson diseases- or Cancer, in which autophagy plays a relevant role. In addition, working together with my laboratory fellows, I take part in a large study on the post transcriptional regulation of key events of the secondary damage of SCI, including autophagy dysregulation, by microRNAs.

#### **Relevant contributions:**

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