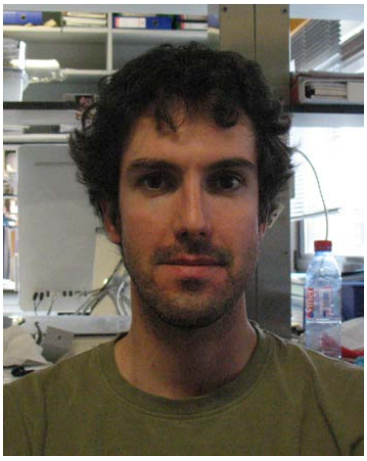
Antonio Laranjeira



Laboratory of Neuronal Differentiation
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BSc in Biology, University of Coimbra, Portugal, 2007
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Fellowships:

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Keywords:

Neuronal Ageing – Gene identification and characterization – Ageing pathways – Ageing biomarkers – *Drosophila*

Science

Aging of the nervous system is characterized by loss of motor, sensory and cognitive function. Similar to what has been demonstrated for life span in various model organisms such as worm, fly and mouse, the maintenance of nervous system function until old age might also be prolonged by manipulation of single genes. Importantly, this might also influence the susceptibility for age-related neurodegenerative disease such as Alzheimer's and Parkinson's disease.
To address these issues, we began by performing a genetic screen to identify genes that contribute to the age-dependent functional decline in the nervous system of the fruit fly *Drosophila melanogaster*. As primary screen we used a behavioural assay known to show an age-dependent decline in motor performance.
At present, the most promising and potential gene-candidates emerging from the screen are being further characterized at the behavioural, genetic, cell biological and biochemical level in order to reveal the mechanisms responsible for the aging phenotype.
The ultimate goal of my study is to unravel the mechanisms that are responsible for nervous system aging and possibly reveal treatment strategies that prevent aging and delay the onset of age-dependent neurodegeneration.