UNIVERSITÀ DEGLI STUDI DI TORINO

I@UNITO – Visiting Scientists

Scientific Area Neuroscience	**Scientific Responsible** Annalisa Buffo	**Host Department** Dept Neuroscience Rita Levi-Montalcini	**Type of activity** Incoming Research stay for Junior scientist	**Start of mobility** December 2016	**Language** English/ Spanish
Type of fellowship	Junior (less than 40 years old) 3 months fellowship				
Title of the Research Project	**Understanding heterogeneity and function of cerebellar astroglia**				
Description of the research project	In the intact parenchyma, astrocytes participate in neuronal activity and are increasingly implicated in neurodevelopment and disease. However, how astroglial heterogeneity is achieved developmentally and how much it impacts on CNS functions is largely unknown. Understanding these aspects may reveal unknown features in the aetiology and progression of neurologic and psychiatric disorders. In this context we aim at understanding phenotypic specification of cerebellar astrocytes and their impact on cerebellar functions in rodent models. So far, we unravelled the embryonic ontogenesis of the distinct types of cerebellar astrocytes and identified transcription factors specifically involved in the specification or amplification of defined astroglial types. Preliminary evidence suggests that the abrogation of these transcription factors in cerebellar astroglia determines morphological alterations and motor disturbances. This project aims at deepen these analyses to fully unveil the cellular and molecular mechanisms leading to the observed cerebellar phenotypes.				
Profile Description	PhD graduate – Master graduate Below 40 years old Citizenship and residence outside Italy Expertise in neuroanatomical techniques and cerebellum				
Research objectives	Competencies to be acquired: expertise in mouse functional genomics, live imaging with two photon techniques, clonal analyses and virus-mediated tracing				
Website and contact	Please contact: annalisa.buffo@unito.it http://www.nico.ottolenghi.unito.it/eng/Research/Research-Groups/Neurobiology-of-brain-plasticity				