A **joint PhD position in Neuroscience** is available at **the University of Turin (UNITO) and the University Côte d'Azur (UCA)** within the framework of the Vinci Program 2020 (Università Italo-Francese/Université Franco-Italienne).

We are seeking for a **highly motivated candidate**, strongly interested in **Experimental Neuroscience and Molecular Neurobiology** and dedicated to high quality research. The research project deals with the identification of **molecular mechanisms controlling mitochondrial function in postnatal neurogenic niches** and their implication in cognitive disorders.

The project will focus on the **mitochondrial dysfunction** caused by deficiency of the transcriptional regulator **Nr2f1** (also known as COUP-TFI) and will address the downstream target genes crucial for mitochondrial function and investigate its outcome on **neuronal plasticity and function.** Patients with **NR2F1 haploinsufficiency** have mild to severe neurodevelopmental cognitive disorders, such as intellectual deficiency, epilepsy, learning and language impairments. The final goal is to unravel the **cellular and molecular mechanisms by which Nr2f1 controls mitochondrial function in neurons and how this is correlated with proper cognitive behavior.**

The project will combine **multiple methodologies** ranging from gold-standard neuroanatomical approaches to advanced techniques, such as tissue clearing, light-sheet microscopy and 3D whole-brain reconstruction, and two-photon functional imaging, as well as genome-wide and *in silico* analyses and animal behavior.

The successful candidate will enroll as a PhD student in Neuroscience at the University of Turin under the co-direction of **Prof. Silvia De Marchis** and **Dr. Michèle Studer**. The candidate needs to have good **communication skills in English** and willing **to work in Italy and France** since the project will be carried out in the "Adult Neurogenesis" group at the Neuroscience Institute Cavalieri Ottolenghi at UNITO and in the "Development and Function of Brain Circuits" group at UCA.

The call will open on **May 20, 2021** on the UNITO website (*deadline for mid-June, 2021 – check the exact deadline on the platform*) and the starting date of the PhD program is November 1st, 2021. The position is fully financed for four years.
General information on the organization and activities of the PhD Program can be found on the PhD in Neuroscience website (https://dott-neuroscienze.campusnet.unito.it).

If interested, please contact silvia.demarchis@unito and michele.studer@unice.fr by including an **updated and detailed CV and a motivation letter**.

Relevant publications:

Bonzano S, Crisci I, Podlesny-Drabiniok A, Rolando C, Krezel W, Studer M, De Marchis S. Neuron-Astroglia Cell Fate Decision in the Adult Mouse Hippocampal Neurogenic Niche Is Cell-Intrinsically Controlled by COUP-TFI In Vivo. Cell Rep. 2018 Jul 10;24(2):329-341. doi: 10.1016/j.celrep.2018.06.044.

Flore G, Di Ruberto G, Parisot J, Sannino S, Russo F, Illingworth EA, Studer M, De Leonibus E. Gradient COUP-TFI Expression Is Required for Functional Organization of the Hippocampal Septo-Temporal Longitudinal Axis. Cereb Cortex. 2017 Feb 1;27(2):1629-1643. doi: 10.1093/cercor/bhv336. PMID: 26813976.

Beckervordersandforth R. Mitochondrial Metabolism-Mediated Regulation of Adult Neurogenesis. Brain Plast. 2017 Nov 9;3(1):73-87. doi: 10.3233/BPL-170044.