

**Open position:**  
**PhD in “multimodal imaging to understand vulnerability for developing schizophrenia”**

**Developmental Imaging and Psychopathology laboratory**  
**Campus Biotech**

Starting date: to be defined

**Working environment:** In the context of a longitudinal study started 15 years ago, we perform a multidisciplinary evaluation of patients with the 22q11.2 deletion syndrome, a neurogenetic condition that confers a high-risk of developing schizophrenia. Our protocol includes acquisitions of structural, functional and diffusion images and their analysis with gold-standard neuroimaging tools. By investigating morphological and connectivity alterations associated to the microdeletion and to the onset of psychotic symptoms, we aim at identifying potential biomarkers for the development of schizophrenia.

**Tasks of the PhD student:**

- To work in collaboration with clinical and engineering departments for the development and application of new methodologies;
- To analyze complex multimodal and longitudinal fMRI data;
- To participate to MRI data acquisition;
- Manuscripts redaction.

**Methods employed in the lab:** Cortical morphometry (thickness, gyrification), voxel-based DTI, tractography, resting-state fMRI, graph theory, pattern recognition, multivariate pattern analysis (MVPA).

**Toolboxes employed in the lab:** Matlab, SPM, FSL, FreeSurfer, connectomemapper.

**Academic requirements:** Master in medicine, psychology, biology, sciences, mathematics, engineering, neurosciences or equivalent title. Expertise in brain imaging and/or programming is not mandatory but highly preferred.

**Contact:** The candidature (motivation letter, CV, copy of the diploma and graduations, eventually letter of recommendation) has to be sent preferentially by email to the following addresses:

Maria Carmela PADULA ([maria.padula@unige.ch](mailto:maria.padula@unige.ch))  
Maude SCHNEIDER ([maude.schneider@unige.ch](mailto:maude.schneider@unige.ch))

Campus Biotech  
Chemin des Mines 9  
1202 Genève  
022/379.12.28

<https://www.unige.ch/medecine/psyat/en/research-groups/693eliez/>