



Thesis Project Form

Title (tentative): Brain organoids and electrophysiology: characterizing electrophysiological activity from human derived brain organoids

Thesis advisor(s): Martinoia Sergio, Lorenzo Muzzi

E-mail: Sergio.Martinoia@unige.it

Address:

Phone: (+39) 010 33 52980

Description

Motivation and application domain

Basic and advance skill for cell culturing.
Basic molecular laboratory skills.
Data acquisition, processing and analysis.

General objectives and main activities

The aim of this thesis is to learn and master a protocol for the generation of brain organoids from induced pluripotent stem cells. Consequently, it will be necessary to implement a technique that allows recording the electrophysiological activity of these samples during development in order to be able to trace and characterize their development over time.

Training Objectives (technical/analytical tools, experimental methodologies)

Basic and advance skill for cell culturing.
Basic molecular laboratory skills.
Data acquisition, processing and analysis.

Place(s) where the thesis work will be carried out: Gaslini Hospital

Additional information

Maximum number of students: 1