



## Thesis Project Form

**Title (tentative):** Human stem-cells derived neurons coupled to MEA devices for studying epilepsy

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### Description

#### Motivation and application domain

Neuroengineering, brain-on-a-chip, neuroal diseases and translational medicine

#### General objectives and main activities

Experimental work involving neuronal differentiation of human induced pluripotent stem cells and electrical activity recordings using micro-electrode arrays. Data analysis on dataset including control and cells from epileptic patients

#### Training Objectives (technical/analytical tools, experimental methodologies)

Experimental neuroscience and neuroengineering. Data analysis. Translational medicine.

**Place(s) where the thesis work will be carried out:** Neuroscience Lab @UTWENTE, The Netherland

### Additional information

**Maximum number of students:** 2

**Financial support/scholarship:** Erasmus+