

## Analysis of pericyte differentiations from induced pluripotent stem cells (iPSCs)

### Description:

Pericytes are cells that are crucial for proper formation and maintenance of the blood-brain-barrier (BBB). In-vitro cell culture models of the BBB, and damage to the BBB, can help understand a wide range of brain disorders. Induced pluripotent stem cells (iPSCs) have great potential for analyses of genotypic influences. Patient-derived in-vitro models could provide detailed insights into pathogenesis, disease progression as well as personalized medicine. Using validated human in-vitro models instead of animal models is also ethically highly favourable and more time- and cost-effective.

Several protocols exist for differentiating pericytes from iPSCs. We want to try different approaches and validate mRNA expression changes with qPCR data. Immunocytochemistry staining should confirm protein expression changes and pericyte characteristics.

### You will:

- Learn about key aspects of cell culture, including iPSCs
- Differentiate iPSCs into pericytes following different protocols
- Compare differentiation protocols by immunocytochemistry staining

### You should:

- Feel enthusiastic about contributing to iPSC-based vitro-models
- Be highly motivated to work conscientiously with human cell cultures
- Have basic knowledge about cell biology and cell culture methods

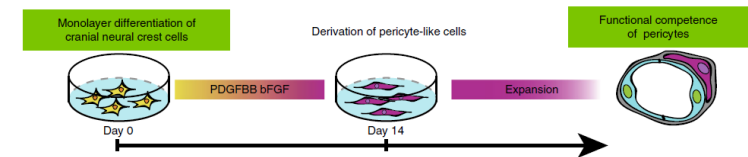
**Start:** By arrangement

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**Application:** please send an email with CV, transcripts, and letter of motivation

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