



## **Master thesis opportunity: Use of human pluripotent stem cells and genome editing for disease modeling**

### **Objective**

Use of human pluripotent stem cells (hPSCs) is an exciting novel approach to generate differentiated cells in large quantities to allow for disease modeling and identification of novel therapeutics. HPSCs can be differentiated into any of the of somatic cell types in the human body.

Moreover, hPSCs can be cultured *in vitro* for large number of passages without acquiring genetic abnormalities. This makes these cells suitable for genetic modifications. Technologies for genome editing allow targeted genetic alterations, ranging from single-nucleotide modifications to whole gene insertion or deletion.

The successful candidate will take advantage of the synergy of both technologies and explore genome editing in stem cells that can be useful for disease modeling in drug discovery. This master thesis offers a great opportunity to learn state-of the art technologies in a vibrant collaborative industry setting.

### **Requirements**

We are looking for a master thesis student to perform the experimental part of his/her thesis in our laboratory, based in the headquarters in Basel (Switzerland), for the duration of 10 months. We will provide accommodation and a compensation for the living costs.

Considerable previous practical experience in mammalian tissue culture and molecular biology (RNA isolation and qPCR) is necessary. Applicant must be fluent in English. Experience in working with hPSCs is a plus. The candidate should be diligent, accurate and enthusiastic in his research tasks.

The preferred start date of the internship is from July 2017.

Please note that non-EU/EFTA nationals have to successfully apply for a Swiss work permit.

Applications need to include a CV and a cover letter.

### **Please apply to:**

Filip Roudnicky, PhD ([filip.roudnicky@Roche.com](mailto:filip.roudnicky@Roche.com))