University of Zurich[UZH]

Department of Chemistry

Master's thesis in the cellular characterization of targeted protein degraders

The following project is conducted at the laboratory of Prof. Dr. Cristina Nevado at the Department of Chemistry, University of Zurich, and will be supervised by Dr. Katherine Gosselé.

The project

PROteolysis TARgeting Chimeras (PROTACs) induce the degradation of a protein of interest (POI) by simultaneously binding to the POI and an E3 ligase, leading to POI ubiquitination and degradation by the proteasome. Compared to small molecule inhibitors PROTACs have a number of advantages, including catalytic activity and the ability to target all protein functions simultaneously.
We are currently developing PROTACs targeting large multi-domain proteins whose dysregulation is implicated in a number of cancers, and have a promising lead compound to use as the basis of a further medicinal chemistry optimization campaign.

Your responsibilities

The project will encompass a wide range of assays performed in mammalian cell lines, such as Western blotting to measure POI degradation, CESTA based analysis of POI binding, and cell viability assays to measure the anti-cancer effect.

We look for

An enthusiastic and motivated student to characterize the activity of these new compounds.

We offer

The opportunity to complete your Master's thesis as part of a large multidisciplinary project but within a close and supportive environment. Starting date as soon as possible or upon agreement.

Place of work

University of Zurich, Department of Chemistry, Winterthurerstrasse 190, 8057 Zurich

Contact details

If you are interested or have further questions about the project, please contact Dr. Katherine Gosselé: katherine.gossele@uzh.ch.