

## Master project 2020-2021

### Personal Information

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### Project

## Pharmacoinformatics & systems pharmacology

#### Project Title:

A knowledge-based approach to PROTACs design

#### Keywords:

PROTACs design

#### Summary:

PROteolysis Targeting Chimeras (PROTACs) have emerged as a new revolutionary modality in drug discovery. PROTACs are heterobifunctional molecules comprising of a ligand targeting a protein of interest, a ligand targeting an E3 ligase and a connecting linker. The aim is, instead of inhibiting the target, to induce its proteasomal degradation [1,2]. In spite its wide exploitation in many therapeutic areas, there is still a lack of well-thought knowledge-based strategies to designing PROTACs. Accordingly, the main aim of this project will be to establish the knowledge basis to develop new approaches to PROTACs design.

#### References:

[1] M. Konstantinidou et al. PROTACs- a game-changing technology. Expert Opinion in Drug Discovery (2019) 14:1255. [2] Sun et al. PROTACs: great opportunities for academia and industry. Signal Transduction and Targeted Therapy (2019) 4:64.

#### Expected skills::

The ideal candidate should have good scripting/programming skills and a background on chemistry/biology/pharmacology/pharmacy.

#### Possibility of funding::

To be discussed

#### Possible continuity with PhD: :

To be discussed

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