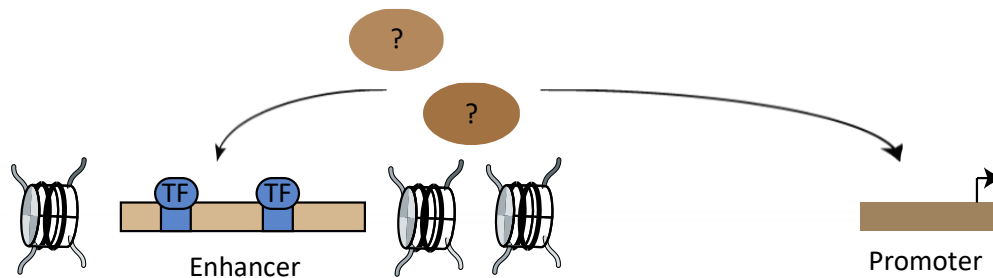


Master thesis at the Research Institute of Molecular Pathology

We are looking for a highly motivated master student, who is interested in genomics and transcription regulation. The position will be available from April/May 2018 in the research group of Alexander Stark at the IMP.

Background:

Enhancers are key regulators of differential gene regulation, the process that enables diverse cellular functions and morphologies in all multicellular organisms. Much is known about enhancer predictions, transcription factor binding to enhancers, and promoter-enhancer cooperation. What is still unknown is the functional interplay between enhancers and cofactors – the regulatory proteins that mediate the communication to the promoter and ultimately activate transcription.



Project:

The master thesis project will study the interplay and dependencies between enhancers and cofactors. To answer this question students will work with CRISPR-Cas9, rapid protein-depletion by chemical genetics based on the Auxin inducible degradation system, and STARR-seq - a next-generation-sequencing (NGS) based method developed in our lab that allows measurements of enhancer activities genome wide (Arnold et al., Science 2013; Muerdter et al., Nature Methods 2018).

This master thesis project will provide novel insights into cofactor function and enhancer modulation as well as cofactor degradation, a promising new therapeutic strategy against certain forms of cancer.

Requirements:

Applicants should hold a BSc degree in molecular biology or a related field. Our lab consists mainly of foreign scientists therefore candidates should have excellent writing and oral communication skills in English. The applicants should have the equivalent of at least 4 months of laboratory experience, particularly in the fields of molecular and RNA biology.

If you are interested apply to
christoph.neumayr@imp.ac.at