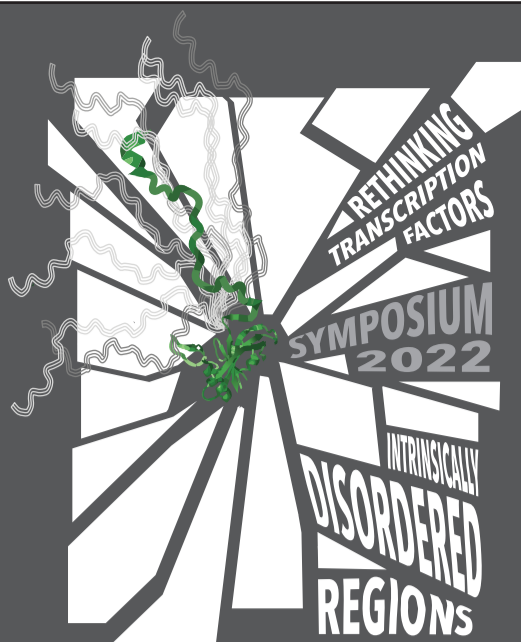


# PhD Course in Rethinking Transcription Factors

DATE: 20-26/8 – 2022



## DESCRIPTION

Rethinking Transcription Factors is a PhD course dedicated to protein chemistry and gene regulation within the field of transcription factors. The course will provide the student with an overview of state-of-the-art biophysical and biochemical methods for the study of transcription factors with emphasis on **Intrinsically Disordered Regions**.

The PhD course will evolve around a 2.5 days Novo Nordisk Foundation Symposium entitled '**Rethinking Transcription Factors**' which covers recent conceptual break-throughs in the understanding of transcription factors relating to:

- 1 Complex specificity
- 2 Allosteric-based competition in binding
- 3 Large interactomes
- 4 Phase separation
- 5 Drug development

Prior to the symposium, the students will spend 3.5 days with 3 of the speakers of the symposium and the organizers learning in-depth methods as **single-molecule spectroscopies, kinetics and mechanism, NMR spectroscopy, and phase separation through workshops**.

## PLAN

SATURDAY 20/8/22	SUNDAY 21/8/22	MONDAY 22/8/22	TUESDAY 23/8/22	WEDNESDAY 24/8/22	THURSDAY 25/8/22	FRIDAY 26/8/22
ARRIVAL	PRESENTATIONS	NMR SPECTROSCOPY	SINGLE MOLECULE SPECTROSCOPY	SYMPOSIUM	SYMPOSIUM	SYMPOSIUM
INTRO TO STRUCTURAL DISORDER		KINETICS	PHASE SEPARATION			
DINNER		SOCIAL EVENT	SOCIAL EVENT			

## LEARNING OUTCOME



Knowledge of and insight into cutting edge research in transcription factors, especially their Intrinsically disordered activation domains. Insight in biophysical and biochemical methods and data interpretation including single-molecule fluorescence, mechanistic decoding from kinetics, NMR spectroscopy on IDPs, phase separation, and high-throughput strategies. The student will also obtain training in oral and written science presentation with poster and oral presentations as well as scientific discussions and feed-back.

## ASSESSMENT



The student must have participated actively in the symposium (and asked one question in plenum to a speaker), and presented a poster at the poster session. The student must also have demonstrated activity in the method-oriented workshops through participation in discussions, and presented and discussed their PhD project in front of all participants and the teachers, who will provide direct feed-back.

## APPLICATION



Applications for participation in the course are submitted via the University of Copenhagen course catalogue on <https://bio.ku.dk/bms/rethinkingTF>. Successful applicants are automatically registered for a free seat at the symposium.

## VENUE



Teaching and seminars will take place at the Department of Biology, UCPH, while the symposium will take place at the Novo Nordisk Foundation premises in Copenhagen, Denmark.

The course is free, including free registration for the symposium. Travel and accommodation must be covered by the students. Minor travel grants will likely be available.

Maximum number of participants: 20  
Deadline for registration: 1/5-2022  
ECTS: 5