

# Molecular Targets and Cancer therapy From Bench to Bedside

We understand more and more how deregulation of different pathways can lead to the development of cancer. Several novel anticancer drugs have been developed specifically targeting these involved pathways. But how to introduce new treatment possibilities into a clinical setting? And how do you set up a clinical trial? The half minor ‘Molecular targets and cancer therapy’ deals with these issues. If you want to be a clinical oncologist or a researcher involved in designing and coordinating clinical trials, or if you are simply interested in exploring this area, this half minor may be for you.

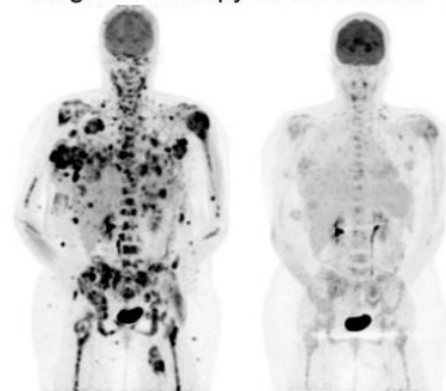
## Introduction

In 1971 president Richard Nixon of the United States started the ‘War on Cancer’ by signing the National Cancer Act, a federal law. The act was intended to strengthen the National Cancer Institute in researching this ubiquitous disease. Cancer development is highly complex, and results from genetic mutations, alterations in non-coding RNA repertoires, and changes in epigenetic regulators and metabolic states. Patients and tumors are heterogeneous in nature, implying not only that each patient presents a unique

## Quote

“Perfect structure and balance between scientific research and clinical practice.”

Targeted Therapy for Melanoma



Widespread mets on PET

After PLX4032

case, but also that each patient responds differently to therapy.

## Overview

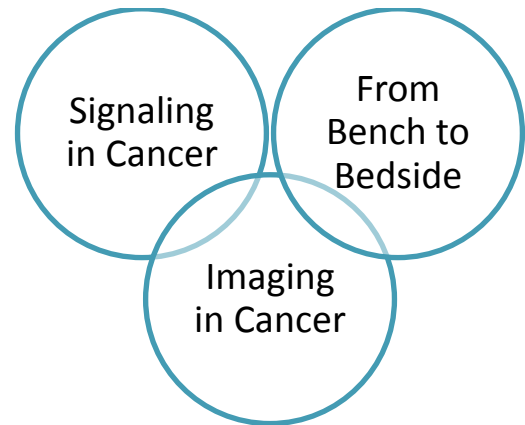
This half minor utilises and extends your basic knowledge on molecular biology and oncology, and help you translate this to investigate cancer treatment possibilities. The course teaches the current concepts of translational research, while also focussing on molecular pathways containing targets for novel treatments.

Six tumor conditions, Sezary syndrome, Ewing carcinoma, breast cancer, renal cell carcinoma, melanoma and gastric/oesophageal cancer, will be discussed in-depth while following three central themes: signalling in cancer, imaging in cancer, and from bench to bedside: clinical trial design.

**Clinical experience at the department of oncology!**

## Learning goals

At the end of this half minor, the student has profound knowledge of cell communication, differentiation and proliferation. Students can also conduct molecular experiments, and evaluate the application of new techniques in cancer therapy. Finally, the student acquires the essentials of clinical trial design and writes a proposal.



**Great innovative and clinical experience in translational oncology!**



## Assessment

- Clinical trial proposal
- Practical Report
- Written exam: open questions
- Presentation

## Quote

**“Great diversity of topics and the teachers stimulated us to understand the course load in- depth.**

## Contact us



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