

SK00023 Translational cancer research, 1.5 credits

Translationell cancerforskning, 1.5 högskolepoäng

Third Cycle/Forskarnivå

Confirmation

This syllabus was confirmed by the Council for PhD Education at Sahlgrenska Akademy on 28-08-2018, and is valid from the spring semester 2019.

Responsible institute: Institute of Clinical Sciences

Entry requirements

For admission to the course it is required that the student is admitted to PhD studies.

Course content

The course will provide an introduction to bench-to-bedside research. A survey of descriptions of different examples of projects with a strong translational edge will be provided. The role of different competences required to finalize a translational project including medical doctors, pre-clinical investigators and industry will be exemplified.

The course will cover the following topics:

- The current state of knowledge by exemplifying with projects using translational approaches to cancer research.
- The demonstration of the importance of a multi-disciplinary team effort in translational cancer research.
- Description of different work flows such as biobanking, sequencing data, biomarker discovery, animal modeling, clinical chemistry and immunology, drug and diagnostics development and early clinical trials.

Learning outcomes

Knowledge and understanding

- Account for the concept of translational cancer research, the 'valley-of-death', and how to bridge it.
- Demonstrate an advanced knowledge of experimental strategies, methods and tools in translational cancer research.

Learning outcomes: Skills and ability

- Describe and discuss the problems with translational cancer research and how to overcome them.
 - Demonstrate the ability to choose suitable experimental and computational approaches in translational cancer research.
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- Critically analyse, explain and discuss scientific topics and research issues in translational cancer research.

Judgement and approach

- Understand the techniques that have been introduced in the course and be able to select the most suitable methods for specific research questions.
- Demonstrate skills in critical thinking and show understanding of the problems and possibilities of translational cancer research.

Types of instruction

The course consists of lectures, multidisciplinary tumor boards and seminars/group discussions where doctoral students have an opportunity to discuss their own projects focusing on translational research.

Requested readings

Scientific articles

Assessment

The course is assessed by active participation in the lectures, group discussions, multidisciplinary tumor boards and on the oral presentation.

A doctoral student has the right to request a change of examiner if failed twice on the same exam, if this is practically possible. Such a request should be made in writing and addressed to the institute.

Grading scale

The grade Pass or Fail is given in this course.

Course evaluation

A written course evaluation will be performed directly after the course according to the praxis set by Sahlgrenska Academy. The evaluation is anonymous and involves lectures and seminars. The results of the evaluation will be used for the further development of the course.