

DEPARTMENT OF MICROBIOLOGY, TUMOR AND CELL BIOLOGY

C1F3114, Molecular Immunology, 3 credits (hec)

Molekylär immunologi, 3 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus was approved by the The Committee for Doctoral Education on 2023-11-27, and was last revised on 2025-02-20. The revised course syllabus is valid from autumn semester 2025.

Responsible department

Department of Microbiology, Tumor and Cell Biology, Faculty of Medicine

Prerequisite courses, or equivalent

Basic knowledge in immunology corresponding to the learning outcomes of the courses "Basic immunology".

Purpose & Intended learning outcomes

Purpose

This course is an extension of the Basic Immunology course and is suitable for students who already have some background knowledge of immunology. The aim of the course is to expose students to the molecular aspects of the immune responses.

Intended learning outcomes

After the course, the student should be able to relate their own research project to the cuttingedge developments in other areas of immunology research. Furthermore, they should be able to present novel information about an immunological problem or a specific technique.

Course content

The course covers topics of immune cellular interactions, immune cell signalling as well as the role of epigenetics and genetics in determining immune responses and immune cell development. Students will be asked to study an immunological method or problem deeply at the theoretical level.

Forms of teaching and learning

Lectures, seminars and oral presentations. The course is given over 2 weeks. Invited national and international lecturers give their views on selected problems, or techniques, in immunology. The seminars take off from basic facts, and after that the speakers move on to current problems, and focus on both scientific and methodological aspects. During the course the students will be expected to present orally selected topics within the field of immunology focusing on molecular events important in the development or maintenance of immune responses. At the end of the course, the students will write an essay on these methods or problems.

Language of instruction

The course is given in English

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

Oral presentation of selected topics. If a student misses the presentation, a special presentation with the course leader will be arranged.

Forms of assessment

Oral presentation of selected topics and a final written exam based upon take home essay questions. These questions cover current problems, theories in immunology or relate the student'äs own research to cutting edge developments in the other areas of immunology research.

Course literature

Reading standard text books in immunology, such as Janeway, Immunobiology 9th edition, is recommended but not required. Review articles pertinent to the subject are handed out by the lecturers. During the group work, specific articles on the immunological problems or techniques are recommended.