



**Karolinska
Institutet**

Course syllabus for

Advanced course in stem cell biology and regenerative medicine, 9 credits

Påbyggnadskurs i stamcellsbiologi och regenerativ medicin, 9 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Please note that the course syllabus is available in the following versions:

Autumn2011 , Autumn2013 , Autumn2014

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| Course code | 4BI076 |
| Course name | Advanced course in stem cell biology and regenerative medicine |
| Credits | 9 credits |
| Form of Education | Higher Education, study regulation 2007 |
| Main field of study | Biomedicine |
| Level | AV - Second cycle |
| Grading scale | Pass, Fail |
| Department | Department of Cell and Molecular Biology |
| Decided by | Programnämnd 7 |
| Decision date | 2011-04-06 |
| Revised by | Programme committee for study programmes in biomedicine |
| Last revision | 2020-06-10 |
| Course syllabus valid from | Autumn 2014 |

Specific entry requirements

At least the grade G (pass) on the courses Applied communication in biomedicine 1 including philosophy of science and bioethics, Applied communication in biomedicine 2, Frontiers in translational medicine, Laboratory animal science in theory and practice, and Biostatistics, within the Master's Programme in Biomedicine.

Objectives

The course objectives are to bring together cell biological, biochemical, anatomical, histological, physiological and evolutionary medical approaches to form a coherent picture of stem cells in an experimental and clinical context.

On completion of the course the student should be able to:
With regard to knowledge and understanding

- state the functions of stem cells in the body and their use in the medical context (regenerative medicine),
- explain the main principles of modern stem cell biology and regenerative medicine.

With regard to skills and ability:

- explain the use of the most important methods regarding stem cell biology and regenerative medicine.

With regard to judgment and attitude:

- demonstrate an analytical and scientific approach.

Content

Part 1. Introduction to stem cell biology and regenerative medicine, 4 weeks.

Part 2. Seminars and journal clubs or participation in conferences, 2 weeks.

Teaching methods

The pedagogic view is based on learning as an active research process. The course is an advanced course and students are required to take own responsibility for acquiring knowledge. Teaching will be in the form of expert lectures, seminars and group-based work guided by researchers. Group-based and/or individual assignments are included and are presented as written reports and oral presentations. Computers will be used for bioinformatics analysis, searching information and for writing reports and presentations.

Examination

Part 1 will be examined by assignments, presented orally or in writing.

Part 2 will be examined with active participation.

Compulsory attendance

Attendance in seminars and group work is compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results will not be registered in LADOK. Absence from a compulsory activity may result in that the student cannot compensate the absence until the next time the course is given.

Limited number of examinations or practical training sessions

Students who have not passed the regular examination are entitled to participate in five more examinations. If the student is not approved after four examinations, he/she is recommended to retake the course at the next regular course date, and may, after that, participate in two more examinations. If the student has failed six examinations/tests, no additional examination or new admission is provided.

The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination, for which the student registered but not participated in, will not be counted as an examination.

Transitional provisions

The course is cancelled and was offered for the last time HT16. Examination according to this syllabus will be offered for the last time VT21 for students who have not completed the course with a passing

grade.

Other directives

The course language is English.

Literature and other teaching aids

Course literature is scientific papers and material handout out during the course.