

## SK2513 Cell culture: theory and practice 4,0 hp

### Course PM 2019

All practical information is published in Canvas. The Canvas pages become visible when the student is admitted to the course. Full functionality becomes available when the student is registered for the course.

#### Lectures (10 hours)

#	Date	Time	Lecture
1	2018-10-31	13-15	<b>Introduction</b> <b>Materials and equipment needed for the cell culture</b>
2	2018-11-07	14-16	<b>Cell culture medium and other solutions used in cell culture</b>
3	2018-11-14	13-15	<b>Cell culture protocols</b>
4	2018-11-21	13-15	<b>Cell culture contamination</b>
5	2018-11-28	13-15	<b>Good cell culture practice</b>

Handouts from the lectures become available in Canvas after corresponding lectures.

#### Laboratory exercises (12 hours), 2.0 credits, grade scale: P, F

Each student has to attend 3 laboratory exercises:

Lab 1: Replating of animal cells; demonstration

Lab 2: Replating of animal cells; performed individually by each student

Lab 3: Assessment of cell viability by two different methods (including replating of the cells performed by each student)

#### Mini-tests

On the lectures # 2-5, small quizzes are given, based on the material from lectures # 1-4, respectively. The questions are of true-false type and short calculations.

The points for the quizzes are used as bonus points at the written exam. Maximal number of bonus points corresponds to about 2/3 of the points needed to pass (grade E).

#### Written examination (5 hours), 2.0 credits, grade scale: A, B, C, D, E, FX, F

The exam consists of about 10 tasks. Some of these are of true-false type, some of essay type, and some include calculations.

For the grade A, the student should have a very good knowledge and clear understanding of all the topics discussed during the course. The student should be fluent with calculations involved in cell culture and cell treatments.

For grade C, the student should have a good knowledge and understanding of the topics discussed during the course. The student should have a clear idea of how to perform the calculations involved in cell culture and cell treatments.

For grade E, the student should have a good knowledge and understanding of the most important parts of the topics discussed during the course. The student should have a general idea of how to perform the calculations involved in cell culture and cell treatments.

### **Course literature**

All the course literature is in the form of on-line sources:

1. ECACC Handbook – Fundamental Techniques for ECACC Cell Lines
2. Technical Tip from Roche: Culture of Animal Cells - Basic Techniques
3. Tips and Tricks for Successful Cell Cultures

### **Teacher, examiner, course responsible, and the lab assistant**

Marina Zelenina, [marinaz@kth.se](mailto:marinaz@kth.se)