

## Evaluation of student course HUIMM307 Basic course in flow cytometry Spring 2019

### Background:

Ten participants followed the course, 4 PhD fellows and 6 master students. The course was an intensive course over 5 days starting Monday March 11. The course was from 8:30 in the morning until 16 in the afternoon. The course was organized by Silke Appel, Brith Bergum and Jørn Skavland with help from Magdalena Keindl and Aleksandra Petrovic (who gave lectures and practical advice). Richard Davies and Tim Holmes had 1 lecture each.

The plan for the course is given in the appendix. The methods that were included in the course were cell cycle analysis, apoptosis, surface marker staining and quantification of EGFP-transfected cells.

All students passed the oral exam (presentation of the generated data), but one participant failed the written exam. Two students sent a complaint on their grades resulting in one of the students moving from C to D.

Grade distribution:

A:1, B: 2, C: 3, D: 2, E: 1, F: 1

The evaluation was performed as a written evaluation.

Nine of the participants handed in a written evaluation. The questions are listed in the appendix.

### Results from the written evaluation

Question A, B, D, and E were graded from 1 to 6 with 6 being the best (very bad, bad, OK, good, very good, excellent). The average is presented. Question C is given 'as is' and question F was comments.

#### A. What is your general impression of the course?

Five graded 'excellent', four graded 'very good'.

**Mean: 5.6**

#### B. How much did you learn at the course?

Four graded 'a lot', three graded 'very much', two graded 'much'.

**Mean: 5.2**

#### C. Have your expectations been fulfilled with regard to the description of the course?

Seven graded 'very relevant', two graded 'relevant'.

#### D. How were the relevant topics communicated?

Four graded 'excellent', four graded 'very good', one graded 'good'.

**Mean: 5.3**

#### E. How did you like the protocols?

One student graded 'excellent', four students graded 'very good', four graded 'good'.

**Mean: 4.7**

**F. Comments/suggestions:**

Student 1) Excellent idea to share analysis on the screen.

It was great so many instructors were working with us and were present. Excellent course, well done, thanks

Student 2) The teacher density was very good! Very helpful and nice teachers.

Student 3) I like the course so much. I think I learned what I wanted to learn.

## Appendix

### 1) Timetable

#### **Basic course in flow cytometry (HUIMM307) – week 11 (March 11<sup>th</sup> – 15<sup>th</sup>)**

Seminar room 5.2, and lab Core facility, Laboratory building 5th floor

#### **Bring your laptop every day!**

	<b>Monday 11.3.</b>		
<b>Seminar room 5th floor</b>	09.30-10.00:	Welcome, general instructions	Silke
	10.00-12.00:	Introduction to basic flow cytometry (fluorochromes, simple compensation, flow cytometers – fluidics, optics, lasers)	Brith
	13.00-15.00:	Demonstration at the flow cytometer (Accuri C6)	Brith
	15.15-16.00:	Introduction to experiment “Cell cycle”	Jørn
	<b>Tuesday 12.3.</b>		
<b>Lab</b>	08.30-11.30:	Experiment “Cell cycle”, hands-on-time at the flow cytometer	Magda, Jørn, Kjerstin
<b>Seminar room</b>	12.30-14.15:	Analysis of generated data “Cell cycle” (hands-on)	Magda, Jørn, Aleksandra
	14.30-16.00:	Introduction to experiment “apoptosis”	Silke
	<b>Wednesday 13.3.</b>		
<b>Lab</b>	08.30-11.30:	Experiment “apoptosis”, hands-on-time at the flow cytometer	Magda, Jørn, Kjerstin
<b>Seminar room</b>	12.30-14.15:	Analysis of generated data “apoptosis”	Magda, Jørn, Aleksandra
	14.15-15.00:	What you can do with flow	Richard
	15.15-16.00:	How to present flow cytometry data	Tim
	<b>Thursday 14.3.</b>		
<b>Seminar room, Lab</b>	09.00-09.45:	Antibody titration and compensation	Magda
	10.00-10.45:	Introduction to experiment “surface marker staining”	Magda
	11.00-14.15:	Experiment “surface marker staining”, hands-on-time at the flow cytometer	Magda, Jørn, Kjerstin
	14.30-16.00:	Analysis of generated data “surface marker staining”	Magda, Jørn, Aleksandra
	<b>Friday 15.3.</b>		
<b>Seminar room</b>	08.30-09.00:	Introduction to experiment “transfected cells”	Jørn
<b>Lab</b>	09.00-11.30:	Experiment “transfected cells”, hands-on-time at the flow cytometer	Jørn, Kjerstin
<b>Seminar room</b>	12.30-14.15:	Analysis of generated data “transfected cells”	Silke, Jørn, Aleksandra
	14.30-16.00:	Results presentation, general discussion, sum up	All

2) The evaluation form

## **Basic course in flow cytometry – HUIMM307**

*We would greatly appreciate your feedback to improve the course.*

**A. What is your general impression of the course?**

very bad --- bad --- OK --- good --- very good --- excellent

**B. How much did you learn at the course?**

very little --- little --- some --- much --- very much --- a lot

**C. Have your expectations been fulfilled with regard to the description of the course?**

irrelevant --- relevant --- very relevant

**D. How were the relevant topics communicated?**

very bad --- bad --- OK --- good --- very good --- excellent

**E. How did you like the protocols?**

very bad --- bad --- OK --- good --- very good --- excellent

**F. Comments/suggestions:** (use backside if necessary)