

# 5MO107 Transgene Technology N/T

## 7.5 ECTS

**Course coordinator/examiner:**

Mattias Alenius (MA) 090-785 67 86

**Course administrator:**

Ingela Nilsson, Department of Molecular Biology, Building 6K, floor 0 (ingela.nilsson@umu.se)

**Lecturers:**

- Mattias Alenius (MA) mattias.alenius@umu.se
- Jan Larsson (JL) jan.larsson@umu.se

**Teaching assistant:**

Emilia johansson Emilia.johansson@umu.se

**Course literature:**

List of suggested reviews included in the manual.

**Lecture rooms:**

Zoom lectures

**Laboratory classes:**

White lab in building 6L

**Compulsory parts:**

- Exam, laboratory classes incl. lab reports, demonstrations, individual project work and presentation. Attendance to lectures is strongly recommended. In case of absence due to sickness please inform MA immediately.
- **Exam:** 2020-03-23 9.00-13.00 ÖP

## **Week 7**

### **Thursday, 18.2**

9.00-10.00 Roll call and course overview (MA)

10.00 – 11.00 The genetic method- genotype vs phenotype (MA)

13.00-14.00 Q and A (MA)

### **Friday, 19.2**

09.00 – 11.00 Animal models (MA)

13.00-14.00 Q and A (MA)

**Assignment topic choice.**

## **Week 8**

### **Monday 22.2**

09.00-11.00 Drosophila molecular genetics/ RNAi (MA)

12.00-15.30 Drosophila Lab- white lab

16.00-17.00 Q and A (MA)

### **Tuesday 23.2**

09.00 – 11.00 Markers-how to visualise cells, processes and proteins (MA)

11.00-12.00 Introduction to the diabetes lab (MA)

14.00-15.00 Q and A (MA)

### **Wednesday 24.2**

09.00 – 11.00 Insertion transgenesis (MA)

13.00-14.00 Q and A (MA)

14.30-17.00 Planning Diabetes model lab – white lab

### **Thursday 25.2**

09.00 – 11.00 Gene Targeting (MA)

13.00-14.00 Q and A (MA)

### **Friday 26.2**

09.00-11.00 Genome editing I (MA)

13.00-14.00 Q and A (MA)

## **Week 9**

### **Monday 1.3**

09.00-11.00 Genome editing II (MA)

13.00-14.00 Q and A (MA)

14.30-17.30 Diabetes model lab– white Lab

### **Tuesday 2.3**

09.00-17.00 Diabetes model lab– white Lab

### **Wednesday 3.3**

09.00-17.00 Diabetes model lab– white Lab

### **Thursday 4.3**

09.00-11.00 Behaviour studies (MA)  
13.00-14.00 Q and A (MA)  
14.30-17.30 Diabetes model lab– white Lab

### **Friday 5.3**

Intense studies!

### **Week 10**

#### **Monday 8.3**

09.00-11.00 Transgenic farm animals/pets  
13.00-17.00 Drosophila lab-white lab

#### **Tuesday 9.3**

09.00 – 11.00 More construction tricks (MA)  
13.00-14.00 Q and A (MA)

#### **Wednesday 10.3**

09.00 – 11.00 Ethics- no is much an answer as yes (MA)

#### **Thursday 11.3**

09.00-11.00 Phenotypic variation-epigenetic factors (JL)  
13.00-14.00 Q and A (JL)

**Dead line assignments hand in**

#### **Friday 12.3**

09.00-12.00 Drosophila lab-white lab

### **Week11**

#### **Monday 15.3**

09.00- 12.00 Assignment presentations (MA)  
12.00 Data hand out Drosophila lab

#### **Tuesday 16.3**

09.00- 12.00 Assignment presentations (MA)

#### **Thursday 18.3**

**Deadline lab reports**

**Exam:** 2020-03-23 9.00-13.00 ÖP