

## **Experimental microsurgery 1,5 or 3 ECTS**

### **Course coordinator:**

Michael Axelsson, michael.axelsson@gu.se

### **Course description:**

This course is a basic five day long course in experimental microsurgery with PhD student within the biomedical fields as a target group. There are no pre-requests for any previous surgery experience.

The course has both theoretical and practical part as well as a literature study on a topic pertaining to experimental surgery and microsurgery.

The theoretical lectures and practical parts of the course runs over five consecutive days and students that pass the examination, based on the practical skills, will get 1.5 ECTS points. The second part of the course is a short literature review that the students do at their own pace within 4 weeks after the practical part, the literature review is marked based on the layout and content and is students that pass will get another 1.5 ECTS (in total maximum of 3ECTS).

The course will take place at Department of Biological and Environmental Sciences, Zoology Building, Medicinaregatan 18A.

### **Theory and practical part:**

#### *Topics that are covered:*

#### **Theory:**

Ergonomy, adjustment of operative microscope, anatomy (mouse and rat), anaesthesia, pre-intra- and postoperative care, aseptic technique, surgical instruments,

#### *Practical part:*

Tissue handling and vascular dissection techniques, suturing techniques, catheters and catheterisation (vena cava, v. jugularis, carotid artery), exposure of vagus nerve, sampling and monitoring basic techniques for end-to-end anastomosis.

We use a combination of non-living simulation models and anaesthetized rats and mice for the practical training.

### **Responsible departments:**

*Department of Biological and Environmental Sciences, University of Gothenburg.*

Michael Axelsson (Course coordinator- instructor and main contact)

*The Transplantation Institute Sahlgrenska University Hospital Gothenburg*

Mihai Oltean (Instructor)

*Laboratory for Transplantation and Regenerative Medicine, Sahlgrenska Academy, University of Gothenburg.*

Mats Hällström (instructor)

**Course examiner:**

Michael Axelsson