

## Practical trainings

During the Autumn School we will teach young scientists two novel and relevant laboratory techniques that are used in reproductive sciences. Due to limited space the number of participants for **each technique is limited to 10 places**. Young scientists are therefore asked to make a decision for one of the two techniques on the registration form.

### (A) Visual demonstration of fetal development using ultrasound

We will teach how to display fetal developmental stages by using our newly acquired ultrasound system for small animals. The Vevo<sup>®</sup> 2100 Imaging System (Visual Sonics) is the first high-frequency, high-resolution digital imaging platform with linear array technology and Color Doppler Mode. This allows us to demonstrate fetal structures and to measure fetal blood flow in the uterine artery; enabling conclusions about normal pregnancy progression and the consequences of pregnancy complications.

### (B) Isolation of sperms and oocytes followed by *in vitro* fertilization

We will teach how sperms and oocytes can be isolated from mice. Sperms will be obtained from the epididymis of male mice. Structural and morphological characteristics of the sperms as well as their number and motility will be evaluated under a light microscope. Oocyte-Cumulus cell complexes will be obtained from the oviducts of hormone-treated female mice. The oocytes will be brought together with the sperms for *in vitro* fertilization.

Before the practical activities, we will give a theoretical introduction and provide the young scientists with all the required material.