

# COURSE: BLOOD SAMPLING TECHNIQUES & HANDLING OF BLOOD SAMPLES

Friday 20 April 2018

Associate Professor, Master of Medical Sciences, PhD, Klas Abelson, University of Copenhagen,  
Associate Professor, Veterinarian, PhD, Lise Nikolic Nielsen, University of Copenhagen &  
Scientific Affairs Manager, Veterinarian, PhD, Karen Ekkelund Petersen, SCANBUR



Blood samples are an essential part of most animal experiments. How do we make sure that the best possible blood samples are taken and at the same time ensure animal welfare? At the moment this topic is highly debated as animal welfare and good reliable research results are focus points of most people actually taking the blood samples.

This course will focus on these topics, including theoretical and practical review of the most frequently used blood sampling techniques, existing guidelines for maximal blood sampling volumes, restitution time and handling of blood samples with regards to stabilization, centrifuging, cooling and storage. Additionally, the theory will contain a part about consequences such as stress, changes in normal biology and pathology that can arise and relate to blood sampling. This part will be based on results from Klas's own group and other groups at the University of Copenhagen. We will have time for questions and hopefully good discussions.

After lunch, the rest of the day will be dedicated to practical exercises where different blood sampling techniques will be demonstrated and rehearsed. Half of these exercises will be dedicated to mice, the other half to rats.

## Day Agenda

08:30-11:00	<i>Theory and debate</i>	11:00-12:00	Lunch
08:30-09:45	Blood sampling <ul style="list-style-type: none"><li>• Methods</li><li>• Best practices</li><li>• What to choose?</li><li>• Serum vs. plasma, stabilization and storage</li></ul>	12:00-15:30	<i>Practical exercises:</i>
		12:00-13:30	Mice
		13:30-14:00	Break
		14:00-15:30	Rats
09:45-10:15	Break		
10:15-11:00	Consequences: <ul style="list-style-type: none"><li>• Stress</li><li>• Pathology</li><li>• Affecting biology</li><li>• Pictures and data</li></ul>		

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## Language

Optional (English or Danish). Our lecturers speak English but as most course participants are from Scandinavian countries the possibility of conducting the courses in Scandinavian is available, if all participants agree on it. Otherwise courses are held in English.

## When

Friday 20 April 2018 from 08:30-16:00.

## Where

Copenhagen University  
Panum, Blegdamsvej 3B, Entrance 16  
DK-2200 Copenhagen N, Denmark

## Price

EUR 605,00 excl. VAT or Academy points 5625.  
Includes breakfast & lunch.

**CLOSED FOR REGISTRATION**  
Contact [academy@scanbur.com](mailto:academy@scanbur.com)

## Educators

**Klas Abelson** is Associate Professor at Department of Experimental Medicine, Faculty of Health & Medical Sciences, University of Copenhagen. He graduated as Master of Medical Sciences (2001) and PhD in Comparative Medicine (2005) at Uppsala University. Klas has been working on the development of objective measurement of pain and stress in rats and mice for many years together with the development of novel methods for alleviating pain and stress in these species. Klas is also working with development and refinement of methods for surgery and blood sampling. Besides conducting research in animal welfare he is responsible for a wide range of teaching and training activities in lab animal science and animal experimentation for post-graduates, PhD students, master students and animal technicians at the Faculty.

**Lise Nikolic Nielsen** is Associate Professor in Veterinary Clinical Pathology at Department of Veterinary Clinical Medicine, University of Copenhagen. Lise qualified as a veterinarian in 2001. After a short spell in general practice, Lise went to University of Glasgow and undertook an internship and residency in veterinary oncology and internal medicine. She obtained her PhD (2010) before going to Novo Nordisk where she worked with animal models within preclinical research. In 2015 Lise went back to the University of Copenhagen and is now the daily Academic Manager and Team Leader of the Veterinary Diagnostic Laboratory (VetLab) and Veterinary Clinical Pathology. VetLab analyzes samples from many different species, and Lise is therefore well aware of the struggles to get adequate samples, how to analyze samples with small volumes and the lack of reference intervals for exotic species.

**Karen Ekkelund Petersen** is a veterinarian, PhD and Scientific Affairs Manager at SCANBUR. Karen finished her master degree in 2012 and since then she has worked with laboratory animals during her PhD studies. These studies related to blood sampling techniques, among other things, including alternatives as automatic blood sampling. In summer 2016 she started at SCANBUR where Karen is responsible for courses, internal research and consultancy of customers. Karen has experience with teaching and has among other topics taught veterinary medicine and PhD students in FELASA B and C courses.