



## Agenda Overview

René Remie Surgical Skills Centre, Operetteweg 27, 1323, Almere, Netherlands

## Information Pack

Thank you for your interest in our Excellence in Microsurgical Techniques Training Course. In this information pack you will find:

- Fee Schedule & Location Details
- Course Overview
- Course Agendas

### Fee Schedule & Location Details

Excellence in Microsurgical Techniques Training Course, is a 3-day course which includes catered lunch and refreshments on all 3 days, with a group dinner usually on the first night. **€1990 or £1490 GBP - excl. VAT.**

Note: Return transport will be provided to and from the Bastion Hotel Almere to the RRSSC each day.

NB: The registration fee does not include other transport or accommodation costs, or any meals not specified above.

#### Day 1

09:00 – 17:00: Basic information and microsurgical techniques

#### Day 2

09:00 – 17:00: Catheterisation techniques I

#### Day 3

09:00 – 17:00: Catheterisation techniques II

### Location Details

René Remie Surgical Skills Centre (RRSSC)  
Operetteweg 27, 1323 VK, Almere, Netherlands

Bastion Hotel  
Audioweg 1, 1322 AT, Almere, Netherlands. Tel: +31 (0)36-5367755

For more information (including accommodation and travel suggestions), please contact us at [training.eu@adinstruments.com](mailto:training.eu@adinstruments.com), or on 01865 332 054.

### Registration

Please request a quotation first, in order to make payment. Request a quote at [sales.eu@adinstruments.com](mailto:sales.eu@adinstruments.com). Payment can be made using a credit card or a purchase order. To make payment contact us at [training.eu@adinstruments.com](mailto:training.eu@adinstruments.com).

### Course Overview

Since the world wide introduction of the concept of Replacement, Reduction and Refinement (3-R's, Russell and Burch, 1959), the way experiments on laboratory animals are performed has changed significantly. In



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surgery, Refinement is one of the most important tools. Using microsurgical techniques and good surgical practice, we are able to reduce tissue trauma, prevent infections and cause the animal the smallest amount of discomfort possible.

Recently, Europe has adopted the EC Directive 2010/63. Article 23 of that directive describes the competence of personnel. The staff carrying out procedures on animals shall be adequately educated and trained before they perform these procedures and shall be supervised in the performance of their tasks until they have demonstrated the requisite competence (for more information see: <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32010L0063&from=EN>).

ADInstruments Ltd and the René Remie Surgical Skills Centre (RRSSC) have joined forces and expertise and are pleased to offer a 3 day Excellence in Microsurgical Techniques Training Course, which will take place at the RRSSC at Almere, the Netherlands.

As well as learning the surgical techniques required to catheterize different vessels and to monitor the wellbeing of the animals, this course will ensure that you are using LabChart to its maximum potential in your research. As well as receiving advice on the best LabChart set-up for your specific measurements, you will also learn about and experience the wide range of specialised LabChart analysis features.

This training is designed to be very practical and combines multiple hands on surgery procedures with lectures (ratio 70/30), as well as techniques in recording and analysing your data, ensuring you receive the most comprehensive training experience.

## The Host

Prof. René Remie, PhD is author and editor of the Manual of Microsurgery on the Laboratory Rat. In 1983 he specialized in pharmacology and did his PhD on the presynaptic modulation of noradrenergic neurotransmission in the portal vein of the freely moving rat. In 1990 he co-founded the Microsurgical Developments Foundation and is currently still chairman. In 1991 he specialized in Laboratory Animal Science and Welfare, and worked for nineteen years as a Laboratory Animal Scientist and Welfare Officer at Solvay Pharmaceuticals.

From 1997 to 2012 he held a chair on Microsurgery and Experimental Techniques in Laboratory Animals at the Groningen Centre for Drug Research, University of Groningen, the Netherlands.

In 2002 he co-founded International Microsurgical Training Centre, was its Scientific Director and course leader. In 2009 he started the René Remie Surgical Skills Centre where he is course leader. He has over 35 years experience as an instructor.

## Who should attend?

This course has been designed for scientists who are new to surgery and pressure recording techniques or those who would like to refine their surgical techniques and need help in the recording and analysis of their blood pressure and other physiological data. The course host speaks several languages including: Dutch, English, French and German, any one-to-one instruction can take place in your chosen/native language.

## Learning Outcomes

After completing the course you will be able to:



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Undertake the surgeries required for reliable BP and LVP surgery. We are so confident that you will master the surgeries required for reliable blood pressure and left ventricular pressure (BP and LVP) surgery, that if this is not the case you will not pay the course fee on the next course you attend.\* This is part of the RRSSC "no cure, no pay" philosophy.

### Topics discussed during the course:

#### Basic microsurgical techniques in rodents

Introduction to:

- PowerLab data acquisition hardware
- LabChart acquisition and analysis software
- Non-surgical techniques
- Good surgical practices (GSP)
- Sutures and instruments ("The art of knot tying")
- Anaesthesia and analgesia (including peri-operative care and monitoring)
- Dissection techniques in blood vessel surgery
- Catheterisation of blood vessels using 'state of the art' Millar catheters
- BP and LVP recording and analysis
- Recording of monitoring signals such as temperature, breathing rate, ECG and heart rate, with the additional possibility of analysing the ECG signal using LabChart
- Specific surgical model theory (techniques, principle) and multiple practical exercises

Places are limited to 8 attendees, so early registration is advised.

\*Surgical competency will be assessed on the ability to reproduce Arterial and Ventricular pressure recordings in LabChart

## Course Agendas

### Day 1: Basic information and microsurgical techniques

09.00 - 09.30 Welcome, introduction and expectations for the course

09.30 - 10.30 Introduction to Hardware:

- PowerLab and Signal Conditioners
- Monitoring techniques and equipment
- Handling and care of Millar® catheters

10.30 - 10.45 Coffee and tea

10.45 - 11.15 Non-surgical techniques and surgical anatomy of the rat

11.15 - 11.45 surgical instruments

11.45 - 12.00 Sutures and suture techniques

12:00 – 13:00 Lunch

13.00 - 14.30 LabChart Level I

Practical exercises

- Channel Settings
- Sampling rate, Gain/Range and Filters
- Calibration

### Event Marking

14.30 - 15.00 Demo on microsurgical suture techniques ("the art of knot-tying")

15.00 - 17.00 Demo on the surgical approach for BP and LVP measurement



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- Catheterisation of:
- Femoral artery
- Left carotid artery
- Right carotid artery for LVP measurement

19:00 Dinner: Group Dinner at the Harbor House Restaurant

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### Day 2: Catheterisation techniques I

09.00 - 09.30 Q&A session I

#### Practical exercises:

09.30 - 12.15 Catheterisation of the carotid artery in the rat, recording using PowerLab and LabChart

12:15 - 13:00 Lunch

13.00 - 15.30 Catheterisation of the left ventricle in the rat, recording using PowerLab and LabChart

15.30 - 17.00 LabChart Level II

- Zoom View
  - Channel Calculations
  - Data Pad
  - Exporting options
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### Day 3: Catheterisation techniques II

09.00 - 09.30 Q&A session II

#### Practical exercises:

09.30 - 10.30 Catheterisation of the femoral artery in the rat, recording using PowerLab and LabChart

10.30 - 10.45 Coffee and tea

10.45 - 12.15 Analysis Modules using recorded data

- ECG analysis Module
- BP analysis module

12:15 - 13:00 Lunch

13.00 - 16.00 BP and LVP measurement in rat or mouse, using PowerLab and LabChart

16.00 - 17.00 Closing remarks and evaluation

## Register Online

<http://www.adinstruments.com/events/training>