

Thank you for your interest in our Langendorff perfused heart techniques and analysis Workshop, to be held on 21 - 22 April, 2015 at the Medizinische Fakultät Mannheim der Universität Heidelberg. In this information pack you will find:

- The course time, dates and fee schedule - **page 1**
- Complete descriptions and agendas for the courses - **pages 2 - 4**
- The course location details - **page 5**

Course Dates & Times

Tuesday 21 April, 2015

13:00 – 17:00: Plenary Talk and Hardware Overview

Become familiar with the hardware available for making measurements from isolated perfused hearts.

An introduction to the relevant LabChart software tools for display and analysis of cardiac functions. Read the complete Langendorff Heart Workshop agenda on **page 3** of this document.

Wednesday 22 April, 2015

09:00 – 15:00: Surgical Demonstration and Data Analysis

Using a Langendorff perfused heart system along with ADInstruments PowerLab data acquisition systems, amplifiers and transducers, you will learn how to record signals from isolated perfused hearts.

You can also learn how to display key measurements such as Heart Rate, LVDP and dP/dT, and how to use additional analysis modules to further define the parameters of your data. Read the complete Langendorff Heart Workshop agenda on **page 4** of this document.

Course Dates & Times

Langendorff Heart Workshop

Commencing on Tuesday 21 April, and continuing through to Wednesday 22 April, 2015, this 1 and a ¹/₂ day course includes dinner on Tuesday 21 April, lunch on Wednesday 22 April, and refreshments on both days. All other meals, accommodation and transport not included.

€850 / £630
Net of VAT

Registration

- To pay using a credit card online: <https://langendorff-heart-workshop2015-adiltd.eventbrite.co.uk>
- To pay via a purchase order, please contact us at training.eu@adinstruments.com

For more information (including accommodation and travel suggestions), please contact us at training.eu@adinstruments.com, or on Tel: +49 6226 970105.



Langendorff Heart Workshop

Using a Langendorff perfused heart system along with ADInstruments PowerLab data acquisition systems, amplifiers and transducers, you will learn how to record signals from isolated perfused hearts.

You will also learn how to display key measurements such as heart rate, LVP and dP/dT and how to use additional analysis modules to further define the parameters of your data.

ADInstruments application scientists will be joined by a panel of expert researchers, including our hosts Prof. Dr. Schubert and Dr. Baumgärtner.

Who should attend?

This course has been designed for cardiovascular scientists who are new to isolated heart techniques, including:

- New members of cardiovascular research groups who need to better understand the underlying theory, experiment protocols and techniques.
- Researchers who are considering or have recently purchased an isolated heart system who need to start producing valid results quickly.

Learning Outcomes

At the end of this training course you will be able to:

- Successfully cannulate an isolated heart
- Calibrate physiological pressure transducers and flow measurements (using the STH pump controller)
- Position electrodes for ECG measurements
- Set up a pacing protocol
- Configure LabChart software settings for accurate parameter recordings
- Generate calculated data and set-up relevant analysis modules

Agenda: Day 1 (Tuesday 21 April)

Afternoon Session

13:00 Plenary Introductory Talk

- Introduction to Langendorff and Working Heart Preparations
Prof. Schubert, Medical Faculty Mannheim at Heidelberg University

14:00 Panlab and Radnoti Langendorff Systems, PowerLab and Front End Hardware

- System overview
- Connections and integration with PowerLab hardware

15:00 LabChart for Isolated Heart Measurements

- Optimal recording settings
- Calibrating pressure and flow channels
- Display options for cardiac parameters
- Signal processing and data extraction
- Analysis Modules
- Export options and file management

17:00 End

Agenda: Day 2 (Wednesday 22 April)

Morning Session

09:00 Surgical Demonstrations

- Surgical harvesting of donor heart
- Aorta cannulation and hanging of the heart
- Langendorff measurements (LV pressure, pharmacological treatment, pacing)

12:00 Lunch

Afternoon Session

13:00 Data Analysis

- Basic calculations and data extraction
- Ventricular pressure analysis with LabChart's Blood Pressure Module
- ECG Analysis with ECG Module
- Peak Analysis and Dose Response Modules

14:00 Open Discussion

- Common pitfalls when recording and analysing isolated heart data
- Troubleshooting

15:00 End

Information Pack

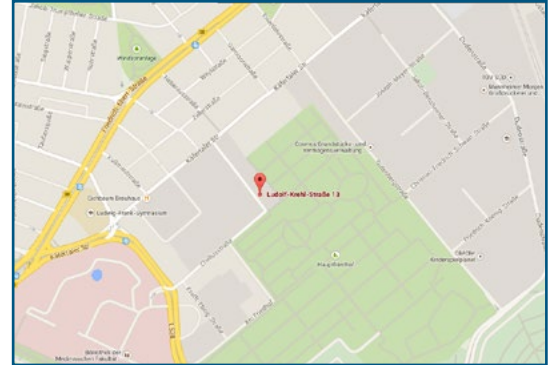
Langendorff Heart Workshop

21 - 22 April, 2015

Course Location

Date: 21 - 22 April, 2015.

Location: Kardiovaskuläre Physiologie
Zentrum für Biomedizin und Medizintechnik
Mannheim
Medizinische Fakultät Mannheim
der Universität Heidelberg
Ludolf-Krehl-Str.13-17
68167 Mannheim
Germany



[GoogleMaps](#)

For more location details please visit the CBTM website.

Guest Instructors: Prof. Dr. Schubert and Dr. Baumgärtner.

They will also be joined by ADInstruments Training and Support Staff.

Fees: €850 / £630 Net of VAT.

Included: This 1 and a ¹/₂ day course includes dinner on Tuesday 21 April, lunch on Wednesday 22 April, and refreshments on both days.

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

Registration: <https://langendorff-heart-workshop2015-adiltd.eventbrite.co.uk>

What to bring: We encourage you to bring your own LabChart data files to the afternoon session. ADInstruments training staff will be able to provide personalised support to meet your specific analysis requirements.

More details: Contact us at training.eu@adinstruments.com or on: +49 6226 970105.