



Speakers



Luis Barthelmes
Labor LS



Dr Christian Faderl
bioMérieux Deutschland



Dr Bernhard Illes
Microcoat



Dr Holger Kavermann
Roche



Dr Michael Kracklauer
Microcoat



Alessandro Pauletto
bioMérieux



Georg Schumm
Lonza Cologne



Veronika Wills
Associates of Cape Cod

Low Endotoxin Recovery/Masking

Hands-on Laboratory Training Course

18/19 March 2025 | Munich/Bernried, Germany



Highlights

- Interpretation of Interference during Endotoxin Detection
- Understanding Low Endotoxin Recovery (LER)
- Setup of hold-time Studies
- Techniques for demasking Endotoxin

Practical Laboratory Training
in small groups – max 15 participants

In order to enable smooth planning of the
required laboratory capacities and materials,
please register by 24 February 2025 at the latest.

Objective

- How to identify Low Endotoxin Recovery (LER)
- How to set-up hold-time studies
- Analysis of influencing factors (Sample matrices, endotoxin, temperature, detection methods, etc.)
- Understanding the driving forces of LER
- Interpretation of test results
- Dedicated sample treatment for demasking

Background

In the last years the LAL test has become the preferred system to test for endotoxins – for the in-process control as well as in the final inspection – and it is anchored in the pharmacopoeias. However, in the recent past, the problem of low endotoxin recovery employs the pharmaceutical microbiology. Masking – or not? Evidence gaps? And how can I close them? And how to evaluate?

These are the questions pharmaceutical microbiologists as well as those responsible for the release have to deal with.

And last but not least, how can we handle the test in daily business in a practical manner?

Target Audience

- Laboratory management and staff of pharmaceutical microbiology
- Microbiologists and laboratory assistants from contract laboratories
- Scientific staff from the Endotoxin testing area

Moderators

Dr Johannes Reich, Microcoat
Axel H. Schroeder, Concept Heidelberg

Social Event

In the evening of the first course day, you are cordially invited to a social event. This is an excellent opportunity to share your experiences with colleagues from other companies in a relaxed atmosphere.



Programme

Endotoxin Detection Methods I (Focus on LAL)

- Definition of Endotoxins
- Basic reaction of Limulus-based detection methods
- General LAL-based detection methods
- Construction and interpretation of standard curve

Endotoxin Detection Methods II (Focus on rFC)

- General rFC-based detection methods
- Sample handling
- Interpretation of results

Test Interference I (Inhibition)

- Positive Product Control (PPC)
- Test inhibition

Test Interference II (Enhancement)

- Experiences with Interferences
- Test enhancement

Technical Report - Guidance for LER Hold Time Studies

- Endotoxin masking
- Planning and implementation of hold-time studies
- Interpretation of hold-time studies

Sample Interference/Hold Time Case Studies

- Endotoxin masking
- Planning and implementation of hold-time studies
- Interpretation of hold-time studies

Mechanistic Principles of Endotoxin Masking and Demasking

- Mechanistic principles of masking
- Mechanistic principles of demasking

Mitigation of LER - General Approach

- General mitigation approaches
- Development of dedicated mitigation protocols to overcome LER
- Case Studies

Sample Preparation to Reverse the LER Effect

- The ENDO-RS technology for endotoxin demasking
- Demasking protocol development - a case study
- Application of demasking protocols

Validation of Demasking Method using rFC-based Assay

- Demasking as sample treatment to overcome LER effect
- Validation of a rFC based method
- Combination of demasking and rFC as release test for DP

Practical Laboratory Work at Microcoat

Simulation of Contamination in Various Sample Matrices

- Preparation of samples affected by
 - Test interference
 - Sample interference

Analysis of Interference in Affected Samples

- Application of different detection systems
 - Limulus Amebocyte Lysate assay
 - Recombinant Factor C assay

Sample Treatment for Demasking

- Screening for demasking protocol
- Optimization of demasking protocol
- Evaluation of demasking protocol

Interpretation and Comparison of Results

- Differentiation between test and sample interference
- Effects of different detection systems
- Demasking of endotoxin

Speakers



Luis Barthelmes, Labor LS

Luis did his apprenticeship as a biology laboratory technician at Labor LS and studied Biological and Pharmaceutical Engineering at the Environmental Campus Birkenfeld. He joined Labor LS in 2019 and is currently responsible for the release testing and validation projects of the Bacterial Endotoxin Test.



Dr Christian Faderl, bioMérieux

Christian Faderl joined bioMérieux in 2017. As Project Coordinator and Manager, he is in charge of endotoxin service projects like feasibility studies and demasking projects.



Dr Bernhard Illes, Microcoat

Bernhard Illes studied chemistry at LMU Munich and did his PhD on nanoparticles and protein activation. He is currently a project manager at Microcoat with a focus on development projects for the mitigation of endotoxin masking in pharmaceutical samples.



Holger Kavermann, Roche Diagnostics

Holger Kavermann studied microbiology at the University of Göttingen and obtained his PhD in medical microbiology at the University of Munich. In 2003, he joined Roche Diagnostics GmbH as Manager QC responsible for the microbiological and cell biological analytics of QC and In-Process-Control-samples in the production of biotechnological derived active pharmaceutical ingredients. In 2013, he became head of the QC Department for Environmental Monitoring and Cleaning Validation. Since 2017, he has been the department head for Microbiology, EM and Cleaning Analytics.



Dr Michael Kracklauer, Microcoat

Dr Michael Kracklauer studied Biotechnologie. He received his PhD from the RWTH Aachen University. The research topic was the field of protein misfolding and amyloid diseases with focus on Alzheimer's Disease. He is since 2018 at Microcoat in the department "Endotoxin Services", with responsibilities for the topics LER, rFC, method development and validation.



Alessandro Pauletto, bioMérieux

Msc in Life Science, Alessandro Pauletto started his activity in the world of endotoxins in 2005 covering different roles. For almost 20 years he has been supporting many companies globally in addressing regulatory and technical issues in the world of endotoxin and pyrogen detection. He currently holds the position of Global LER Business Development Manager for bioMérieux.



Georg Schumm, Lonza Cologne GmbH

Georg Schumm has a master's degree in biology and more than 15 years of experience in the pharmaceutical industry. For over eight years now, his focus has been on microbiological quality control, in particular endotoxin testing and its implementation in a GMP environment. He is currently supporting Lonza customers in the DACH region in ensuring the highest quality standards in pharmaceutical production.



Veronika Wills, Associates of Cape Cod, Inc.

Veronika Wills joined the team in 2007. She manages the Technical Services group at Associates of Cape Cod. Since 2022, she is Associate Director, Global Technical Services.

If the bill-to-address deviates from the specifications on the right, please fill out here:

Reservation Form (Please complete in full)

- Low Endotoxin Recovery/Masking, 18/19 March 2025, Munich/Bernried, Germany
- Monocyte Activation Test (MAT), 20/21 March 2025, Munich/Bernried, Germany

Title, first name, surname

Department

Company

Important: Please indicate your company's VAT ID Number

Purchase Order Number, if applicable

City

Country

Phone / Fax

E-Mail (Please fill in)

CONCEPT HEIDELBERG
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D-69007 Heidelberg
GERMANY

General terms and conditions

If you cannot attend the conference you have two options:

1. We are happy to welcome a substitute colleague at any time.
2. If you have to cancel entirely we must charge the following processing fees:
 - Cancellation until 4 weeks prior to the conference 10 %
 - Cancellation until 3 weeks prior to the conference 25 %
 - Cancellation until 2 weeks prior to the conference 50 %
 - Cancellation within 2 weeks prior to the conference 100 %

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Terms of payment: Payable without deductions within 10 days after receipt of invoice.

Important: This is a binding registration and above fees are due in case of can-

cellation or non-appearance. If you cannot take part, you have to inform us in writing. The cancellation fee will then be calculated according to the point of time at which we receive your message.

In case you do not appear at the event without having informed us, you will have to pay the full registration fee, even if you have not made the payment, yet. Only after we have received your payment, you are entitled to participate in the conference (receipt of payment will not be confirmed)! (As of January 2012).

German law shall apply. Court of jurisdiction is Heidelberg.

Privacy Policy: By registering for this event, I accept the processing of my Personal Data. Concept Heidelberg will use my data for the processing of this order, for which I hereby declare to agree that my personal data is stored and processed. Concept Heidelberg will only send me information in relation with this order or similar ones. My personal data will not be disclosed to third parties (see also the privacy policy at http://www.gmp-compliance.org/eca_privacy.html). I note that I can ask for the modification, correction or deletion of my data at any time via the contact form on this website.

Date

Tuesday, 18 March 2025, 09.30 – 17.15 h
(Registration and coffee 09.00 – 09.30 h)
Wednesday, 19 March 2025, 08.30 – 17.00 h

Overnight Stay

Hotel Seeblick | Tutzingener Straße 9
82347 Bernried am Starnberger See, Germany
Phone +49 (0) 8158 / 254 – 0
Email info@seeblick-bernried.de

Venue of the Laboratory Course

Microcoat Biotechnologie GmbH
Am Neuland 3, 82347 Bernried am Starnberger See, Germany
Transfer service from Hotel Seeblick to Microcoat in the morning and back in the evening will be organised.
Shuttle Service from/to Munich Airport: On 17 March at appr. 19.00 h from Munich Airport to Hotel Seeblick. On 19 March at appr. 17.15 h from Microcoat to Munich Airport.

Fees (per delegate, plus VAT)

ECA Members € 1,990 | APIC Members € 2,090
Non-ECA Members € 2,190 | EU GMP Inspectorates € 1,095
The fee is payable in advance after receipt of invoice and includes dinner on the first day, lunch on both days and all refreshments. VAT is reclaimable.



Participants of the “Monocyte Activation Test Laboratory Training” on 20/21 March 2025 in Bernried get a 200 € discount.

Accommodation

CONCEPT HEIDELBERG has reserved a limited number of rooms in the Hotel Seeblick. You will receive a room reservation form/POG when you have registered for the course. Reservation should be made directly with the hotel. Early reservation is recommended.

Presentations / Certificate

The presentations for this event will be available for you to download and print before and after the event. Please note that no printed materials will be handed out on site and that there will not be any opportunity to print the presentations on site. After the event, you will automatically receive your certificate of participation.

Registration

Via the attached reservation form, by e-mail or by fax – **or search and register directly at www.gmp-compliance.org under the number 21939.**

Conference language

The official conference language will be English.

Organisation and Contact

ECA has entrusted Concept Heidelberg with the organisation of this event.
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