ECA Academy
Your GMP/GDP Information Source

GMP Certification Programme
Certified Quality Control Manager

Speakers

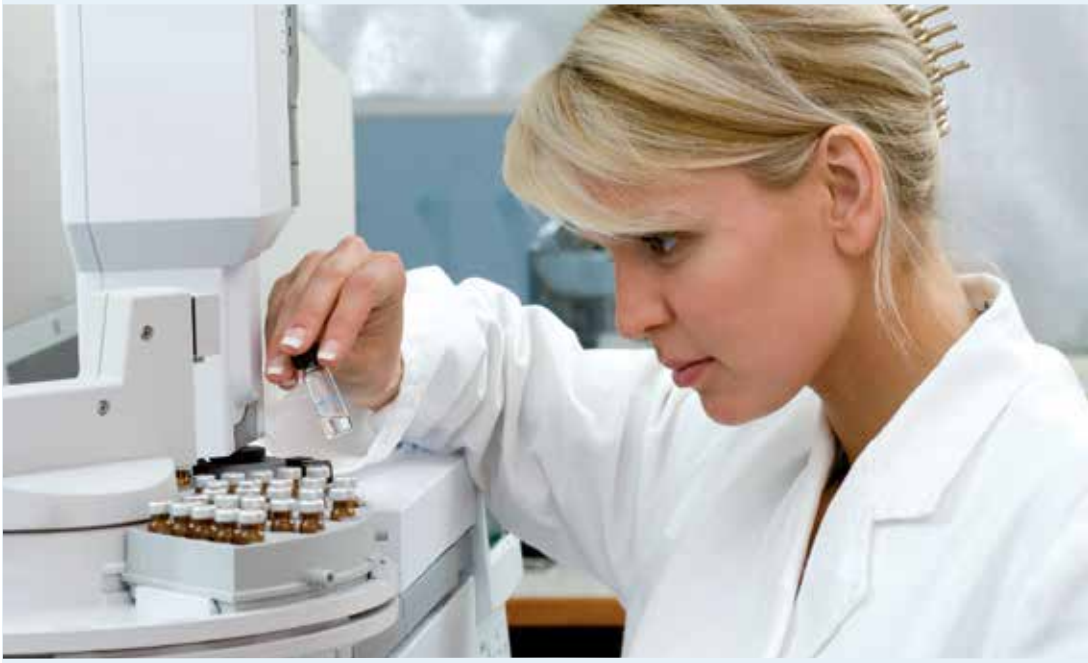
Dr Christopher Burgess
Burgess Analytical Consultancy, UK

Trevor J. Coomber
Pharmaceutical Development Consultant, UK

Dr Xaver Schratt
GBA Pharma, Germany

Validation of Analytical Test Procedures & Measurement Uncertainty

14 – 16 October 2025 | Vienna, Austria



Qualification and Validation in an uncertain analytical world – a holistic approach

Highlights

- Analytical Instrument Qualification
- Measurement Uncertainty and its Impact on Analytical Methods Validation
- Practical Determination of Validation Characteristics
- Regulatory Requirements
- Statistical Aspects of Analytical Methods Validation
- Documentation of Analytical Validation
- Error Budgets and Reportable Values
- Transfer of Analytical Test Procedures
- Analytical Procedure Life Cycle Management

Objective

The objectives of this Education Course are

- to offer practical solutions for determining the validation characteristics
- to learn how to deal with measurement uncertainty and to understand its impact on analytical methods validation
- to understand the qualification of laboratory equipment as a precondition of reliable analytical testing
- to discuss the scope of qualification & validation necessary to obtain approval by the Registration Authorities (EMA, FDA, MHRA, etc.)
- to become familiar with the statistical parameters to be applied
- to outline the documentation (SOPs, Validation Protocols and Reports, etc.) which you should have in your lab
- to provide an outline of the new USP & ICH developments of procedure validation

In order to improve the understanding and practical application of the contents of the lectures, workshops will be part of the training course.

Background

The ICH guideline Q2 lists all characteristics to be considered during validation and describes the method of determining the various validation characteristics. Reliable analytical results do not only require validated test procedures but also the use of analytical equipment qualified for its intended purpose. In order to obtain regulatory approval, the qualification of all critical laboratory equipment must be performed and documented ensuring "fitness for purpose". Furthermore, measurement uncertainty is of key importance in analytical instruments qualification as well as in analytical methods validation and transfer. Therefore, it is absolutely essential that measurement uncertainty is well understood by everybody who is responsible for generating and evaluating analytical results in GMP controlled laboratories.

Target Audience

This interactive Education Course will be of particular interest to Laboratory Managers, Supervisors and Analysts in pharmaceutical quality control departments who have responsibility for the validation of analytical test procedures. Furthermore, this Course is designed for personnel from Quality Assurance, Regulatory Affairs and Contract Laboratories.

Moderator

Dr Christopher Burgess

Programme

Validation in Context

- Practical components of data quality
- Assessment of data quality
- Analytical Procedure Life Cycle Management; the future direction
- Course road map

Basics of Measurement Uncertainty

- Why is measurement uncertainty important?
- Relationship between uncertainty and confidence
- Uncertainty of measurement
- What is a measurand?
- Error sources in analysis and testing

Analytical Instrument Qualification

- USP <1058> Guidance
- USP revision process and GAMP
- Validation Master Plan
- Definition of DQ, IQ, OQ and PQ
- Examples of protocols and documents
- Change Control
- Risk assessment

Measurement Uncertainty in Calibration and Qualification of Analytical Instruments

- Qualification, Calibration & Validation
- Measurement uncertainty
- Propagation of Errors
- Measurement uncertainty of a CRM
- Detection and quantitation limits
- Noise & drift
- Statistical aspects

Analytical Procedure Life Cycle Management; the Future Direction

- Validation; the changing regulatory climate
- FDA Process Validation Paradigm shift
- Analytical Procedure Life Cycle Management
- Data governance in a regulated laboratory
- ICH Q12
- USP <1220>
- ECA APLM guideline

Statistical Aspects of Analytical Methods Validation

- The use (and misuse?) of statistics to support validation data
- Basic theory of the common statistical techniques
- Merits, pitfalls and underlying assumptions of particular tests
- The meaning behind
  - Standard deviation - F-test - t-test
  - ANOVA
  - Linear regression; Correlation Coefficient & Coefficient of Determination
- Exploration of more sophisticated statistical techniques such as interval hypothesis testing and experimental design

Robustness and Ruggedness: the Pathway to System Suitability Tests

- Method development cycle
- Analytical process capability
- Selecting factors and levels
- HPLC experimental design example
- Impact on system suitability tests

Method Validation During the Development Life Cycle

- Product Development Life Cycle
- Sources of Guidance
- ICH Q14
- Screening and Early Safety Studies
- Phase 1 Volunteer Studies
- Phase 2 Clinical trials
- Towards MAA/NDA

Validation for MAA/NDA: Planning and Execution

- Analytical validation according to USP
- FDA Guidances for method validation

Validation for MAA/NDA: Documentation

- Validation report
- Transfer protocol/report
- Validation documentation for registration
- Validation software
- Other Sources of Guidance

Error Budgets and Reportable Values

- What is a reportable value?
- OOS, OOE & OOT
- Method performance and process capability
- ICH precision approach
- Measurement Uncertainty approach combined sources of variation

Transfer of Analytical Test Procedures

- Statistical tests
- Analytical significance vs statistical significance
- Acceptance criteria setting
- Interval hypotheses

Comparison of the APLM and Current ICH & USP Approaches

- Traditional approach to analytical method (procedure) validation, verification and transfer
  - ICH Q2
  - USP <1225> & <1226> [& <1224>]
- FDA process validation guidelines 2011
- USP initiatives: Application to analytical processes
- Proposed General Chapter <1220>
- Statistical toolbox for<1225>; General Chapter <1210>
- New ECA AQC Guideline
- Analytical Procedure Life Cycle Management
- New ICH initiatives

Workshops

During the course 4 workshops will be conducted in order to deepen the content of the lectures and to discuss practical aspects in detail. Workshops will be offered on the following topics:

Analytical Instrument Qualification
The participants will debate the impact of USP proposals in a practical context

Validation Plan
The participants will work on testing schedules for the relevant validation parameters.

Validation Documents Critique
The participants will work, in detail, on a typical case study proposing a suitable program of work for a validation dossier.

Method Transfer
The participants will discuss practical details of an Analytical Methods Transfer.

Speakers

Dr Christopher Burgess
Burgess Analytical Consultancy, UK

He has more than 40 years' experience in the pharmaceutical industry initially within international consultancy. He is a "Qualified Person" in the European Union. He was appointed to the United States Pharmacopoeia's Council of Experts 2010 to 2015 and re-elected 2015 to 2020. He is also a member of the USP Expert Panel on Validation and Verification entrusted to revise General Chapters <1224>, <1225> and <1226>. In addition, he is a member of the Executive committee of European Compliance Academy.

Trevor J. Coomber
Pharmaceutical Development Consultant, UK

Trevor Coomber is a Pharmaceutical Development Consultant with over 40 years experience in the industry. He spent six years as a Senior Project Team Leader and Analytical Science Manager in Pharmaceutical Development in Glaxo Wellcome. Prior to that, he was a Team Leader in the Analytical Development Laboratories in Wellcome with 25 years experience in pharmaceutical analysis of NCEs. He has particular expertise in the development of unstable compounds and the use of kinetics to predict shelf lives. He was the project leader for the technical development of an NCE from discovery to market.

Dr Xaver Schratt
GBA Pharma GmbH, Germany

Dr Schratt studied Chemistry at the University of Bayreuth, where he specialized in HPLC and HPLC/MS. In 2005 he joined GBA Pharma (former LAT) and since 2006 he was head of department "special projects". In charge of national and international pharmaceutical companies he managed all analytical aspects of projects from preclinical stage up to phase III and post market approval. As an expert for chromatography and mass spectrometry he mainly focused on method development, validation and qualification of reference substances. Since 2020 he is as Head of Global Quality Management responsible for global processes of GBA Pharma with special focus on IT processes.

Date
Tuesday, 14 October 2025, 09.00 – 17.00 h
(Registration and coffee 8.30 – 09.00 h)
Wednesday, 15 October 2025, 8.30 – 17.30 h
Thursday, 16 October 2025, 8.30 – 16.30 h

Venue
Austria Trend
Parkhotel Schönbrunn
Hietzinger Hauptstr. 10-14
1130 Wien, Austria
Phone: +43 (1) 878 08 0
Fax: +43 (1) 878 04 630
E-Mail: parkhotel.schoenbrunn@austria-trend.at

Fees (per delegate, plus VAT)
ECA Members € 2,090
APIC Members € 2,190
Non-ECA Members € 2,290
EU GMP Inspectorates € 1,145

The conference fee is payable in advance after receipt of invoice and includes social event on the first day, lunch on three days and all refreshments. VAT is reclaimable.

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

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 21897.

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.

Conference language
The official conference language will be English.

Organisation and Contact
ECA has entrusted Concept Heidelberg with the organisation of this event.
CONCEPT HEIDELBERG
P.O.Box 10 17 64
69007 Heidelberg, Germany
Phone: +49(0)62 21/84 44-0
Fax: +49(0)62 21/84 44 34
E-Mail: info@concept-heidelberg.de
www.concept-heidelberg.de

For questions regarding content please contact:
Dr Markus Funk (Operations Director) at
+49(0)62 21/84 44 40, or at
funk@concept-heidelberg.de

For questions regarding reservation, hotel, organisation etc. please contact:
Ms Manuela Luckhaupt (Organisation Manager) at
+49(0)62 21/84 44 66, or per e-mail at
luckhaupt@concept-heidelberg.de

Your Benefits:

Internationally Acknowledged Certificate from ECA Academy

The EU GMP Guide requires: „... All personnel should be aware of the principles of Good Manufacturing Practice that affect them and receive initial and continuing training,...". This is why you receive an acknowledged participant certificate, which lists the contents of the seminar in detail and with which you document your training.

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This Training Course is recognized for the GMP/GDP Certification Scheme

Building on your education the ECA GMP/GDP certification programmes provide you with the appropriate supplement to acquire this qualification. This training course is the first element for your additional certification. Simply choose any three courses within the programme according to your professional interest. Your certificate is then valid for two years. To renew it, you can pick any training from the ECA courses and conferences list within that two-years period – allowing you to broaden your knowledge in GMP and GDP compliance. Please find more information at www.gmp-certification.org.

Social Event
In the evening of the first 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.

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CONCEPT HEIDELBERG
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D-69007 Heidelberg
GERMANY

Reservation Form (Please complete in full)

Validation of Analytical Test Procedures & Measurement Uncertainty
14 – 16 October 2025 | Vienna, Austria

Title, first name, surname

Department | Company

Important: Please indicate your company's VAT ID Number | Purchase Order Number, if applicable

City | ZIP Code | Country

Phone / Fax

E-Mail (Please fill in)

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 %.

CONCEPT HEIDELBERG reserves the right to change the materials, instructors, or speakers without notice or to cancel an event.
If the event must be cancelled, registrants will be notified as soon as possible and will receive a full refund of fees paid. CONCEPT HEIDELBERG will not be responsible for discount airfare penalties or other costs incurred due to a cancellation.
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 cancellation 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 July 2022).
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.