

# Agilent Partner Lab Workshop Portfolio



Discover Agilent's Best Workshops,  
delivered by Europe's leading Laboratories





# Agilent Partner Labs

## Workshops Delivered by the Application Experts

Are you looking for application training or for a hands-on course on Agilent instruments? The Agilent Partner Lab network is your ultimate resource.

Over the years, the Agilent instrument portfolio has grown significantly. Products are getting increasingly powerful, offering new features, which are changing the workflow of modern laboratories, boosting productivity and throughput. On the other hand, new regulations and target analytes force laboratories to modify analytical methods. Sometimes it is challenging to be up to date in this complex, ever-changing, environment.

The Agilent Partner Lab network is an innovative collaboration between Agilent Technologies and key laboratories, private and academia, throughout Europe where both partners contribute with their instrumental and application expertise. Labs are a precious resource for discussing and finding solutions to the challenges of modern analytical chemistry, and are a perfect place for evaluating new instruments and workflows with real samples.

The Partner Labs are highly experienced in using Agilent chromatography, spectroscopy, and mass spectrometry instruments routinely in food safety, environmental protection, targeted and untargeted metabolomics, pharmaceutical and clinical research, forensics, petrochemical, material sciences, and many other areas.

Interested?  
Contact your local Agilent representative



Attend the workshops in our Partner Lab network and prepare yourself for future analytical challenges.

# European Workshop Content and Locations

Workshops Available	Key Technologies	Main Application Area	Partner Lab	City & Country	Page
Metabolomics & GC/QTOF	LC/MS/MS, LC/QTOF, CE/MS, GC/MS, GC/QTOF	Metabolomics	Universidad San Pablo (CEMBIO)	Madrid, Spain	6
2D-GC/MS	GCxGC, GC/QTOF, GC/MS	Environmental	University of Copenhagen	Copenhagen, Denmark	7
BioPharma (Glycan Profiling)	LC/MS/MS, LC/QTOF	Glycomics, Proteomics	University of Rouen Normandie	Mont-Saint-Aignan, France	8
GPC, VOCs and Odours	GPC, ELSD, GC, HPLC, Spectroscopy, Thermal Analysis, Microscopy	Environmental, Material Science	Certech	Seneffe, Belgium	9
Enviro, Food, Pharma , Forensics and Toxicology	LC/MS/MS, GC/MS/MS, GC/MS	Food, pharmaceutical, Toxicology and Environmental	dtoLABS	Spinea (VE), Italy	10
Dioxins and Pesticides in Food	LC/MS/MS, GC/MS/MS, GC/MS	Food & Environmental	Laboratorio Químico Microbiológico	Murcia, Spain	11
Nanoparticles, Proteomics and Environmental	ICP-MS/MS, ICP-MS, HPLC, UV-Vis, GC-ICP/MS, MALS, FLD	Clinical Research, Environmental	Universidad de Oviedo	Oviedo, Spain	12
Environmental Analysis	ICP-OES, ICP-MS, ICP-MS/MS	Environmental	Eurofins Analytico	Barneveld, The Netherlands	13
Metabolomics and IMS-QTOF	LC, IC, GC and CE, ICP-MS, GC/Q-TOF, LC/QTOF, IMS-QTOF	Metabolomics, Environmental, Food Analysis	University of Natural Resources and Life Sciences (BOKU)	Vienna, Austria	14
Method Transfer and Workflow Optimization	LC/MS/MS, LC-QTOF, UHPLC, GC/MS	Environmental, Pharma, Chemical & Nutritional Analysis.	University of Applied Sciences and Arts Northwestern Switzerland (FHNW)	Basel, Switzerland	15
Online-SPE	LC/MS/MS	Chemical & Pharmaceutical Analysis	Lipidomix	Berlin, Germany	16
Analytical Workshop	LC-QTOF, LC-QQQ, GC-MS, ICP-MS, LC, GC, IC and Multivariant analysis	Drugs of Abuse, Pharmaceutical & Speciality Chemicals	Analytical Innovations	Mirfield, West Yorkshire, UK	17
Environmental and Forensic Toxicology	GC/MS/MS, GC/MS, LC/MS/MS, LC/QTOF, 2D-LC Ion Mobility QTOF	Environmental and Forensic Toxicology	Toxicological Centre of the University of Antwerp	Antwerp, Belgium	18
Separation Techniques	2D-LC, LCxLC-MS, LC-QTOF, LC-QQQ, IMS-QTOF, GC-QTOF, CE, ICP-MS, ICP-OES	Metabolomics & Lipidomics	University of Duisburg-Essen	Duisburg-Essen, Germany	19

## Take a Look at Our Workshop Locations





# Agilent Workshop in Collaboration with CEMBIO

Exclusive hands-on workshops from the metabolomics experts

## Metabolomics and GC/QTOF

### About the workshop

The Centre of Metabolomics and Bioanalysis (CEMBIO) at the Pharmacy Faculty (San Pablo CEU) is led by Prof. Coral Barbas. CEMBIO is devoted to innovative, top level research in the metabolomics field, which requires extensive knowledge in chromatography, mass spectrometry (MS), and biostatistics. CEMBIO has capacity for tackling aspects such as experimental design, analytical methods, and appropriate statistical methods for metabolomics and biochemical interpretation.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise, allowing you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



CEU

*Centro de Excelencia en  
Metabolómica y Bioanálisis*



Location: Universidad San Pablo (CEMBIO), Madrid, Spain.

Key Technologies: LC/MS/MS, LC/QTOF, CE/MS, GC/MS, GC/QTOF

Main Application Area: Metabolomics

[www.metabolomica.uspceu.es](http://www.metabolomica.uspceu.es)

### Workshop highlights

#### Metabolomics Workshop: 2-3-Day Module

Agilent metabolomics solutions and workflows, experimental design, sample preparation from biological matrix to injectable sample, setting the right MS and chromatography parameters for metabolomics analysis with tips and tricks.

Introduction to multivariate analysis, Mass Profiler Professional (MPP) guided and advanced workflow. Mass Profiler Professional, Advanced MPP (if required), summary and final interpretation of results.

#### GC/QTOF Workshop: 3-Day Module

Agilent solutions and workflows, sampling and sample preparation, data acquisition (for example, tips and tricks how to optimize conditions, including hands-on work in the lab), main profiling workflows (target screening using databases and libraries (Fiehn), nontarget screening).

GC/MS data preprocessing and Identification of compounds (MassHunter Qual and Quant), Basic Statistics (including MPP, experimental design, data treatment for statistics, univariate and multivariate analysis in MPP, class assignment).

# Agilent Workshop in Collaboration with the University of Copenhagen

Exclusive hands-on workshop from the multidimensional separation experts

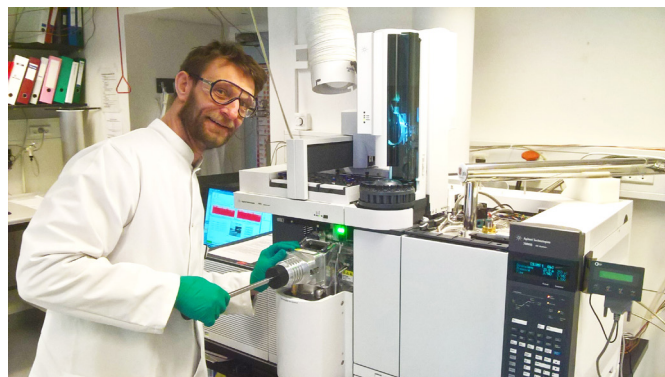
## 2D-GC/MS workshop

### About the workshop

Agilent Technologies, in association with the Research Center for Advanced Analytical Chemistry (RAACE) situated at the Faculty of Science, University of Copenhagen, is pleased to offer a 2D-GC/MS workshop. This is a unique opportunity to learn more about two-dimensional GC/MS.

The experienced team from RAACE will guide you through practical sessions and lectures, which will prepare you to plan and run your own projects once you are back in your lab.

Beginners as well as experts are both very welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of six people to ensure a focused and targeted course.



**Location:** University of Copenhagen, Copenhagen, Denmark

**Key Technologies:** GCxGC, GC/QTOF, GC/MS

**Main Application Area:** Environmental  
[www.ku.dk](http://www.ku.dk)

## Workshop highlights

### Theoretical Session

**The limitations of 1D GC:** all the instances in which 1D GC separations fall far from the analytical requirements, and you need more separation power.

**The basics of GCxGC:** historical aspects, evolution, and principles of GCxGC will be described in detail.

**Method optimization:** "tricks of the trade", from proper column choice, to the application of the best gas flows/linear velocities and temperature program conditions, to finish with the selection of the most appropriate modulation and detection conditions.

**GCxGC/Q-TOF:** the most powerful analytical tool today- available for the analysis of volatiles will be discussed.

**Flow vs. cryo modulation:** The relative merits of each technique.

**GCxGC software.**

### Practical Session

Show how to set up both cryogenic and flow modulators.

"Hands on the instrument" with applications.

"Hands on the software" with practical examples.

"Run Your own sample" in the afternoon.

# Agilent Workshop in Collaboration with the University of Rouen Normandie

Exclusive hands-on workshop from the biopharma experts

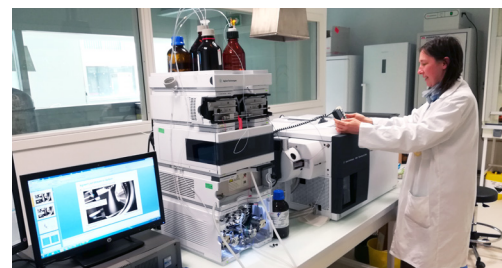
## Biopharma workshops

### About the workshop

Agilent Technologies, in association with the Glyco MEV-Lab and the PISSARO platform from the University of Rouen Normandie (URN), is pleased to offer customised biopharma workshops. This is a unique opportunity to learn more about glycomics, glycoproteomics, and mAb characterization from the leading experts in Europe.

Biopharmaceutical glycosylation plays an important role as it influences immunogenicity, stability and the biological activity of biopharmaceuticals. Therefore, it is considered as a critical quality attribute for biopharmaceuticals, which need to be carefully analyzed.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work. Beginners as well as experts are both very welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



**Location:** University of Rouen Normandie, Mont-Saint-Aignan, France

**Key Technologies:** LC/MS/MS, LC/QTOF

**Main Application Areas:** Glycomics, Proteomics  
[www.univ-rouen.fr](http://www.univ-rouen.fr)

## Workshop highlights

### MS based Glycan Profiling: 3–5-Day Module

Lectures regarding protein glycosylation and its analytical specificity.  
Experimental design.  
Sample preparation: protease digestion and enzymatic glycan release.  
Glycan purification and enrichment using precipitation and solid phase extraction.  
Analytical methods for glycan analyses.  
Glycan purification and enrichment using precipitation and solid phase extraction.  
Fluorescent labeling of glycans.  
Glycan analysis by nano LC/QTOF-MS.  
Tutorial on data processing and analysis for MS data.

### Site-Specific Distribution Using a Glycoproteomic Approach

Lectures regarding protein glycosylation and its analytical workflow.  
Experimental design.  
Sample preparation: in-gel reduction, alkylation and protease digestion, peptides and glycopeptides extraction.  
Peptides and glycopeptides separation and analysis by nano LC/QTOF-MS.  
Tutorial on data processing and analysis for MS and MS/MS data.



# Agilent Workshop in Collaboration with Certech

Exclusive hands-on workshop from the environmental and material science experts

## GPC - VOCs and odor(s) analysis

### About the workshop

Agilent Technologies, in association with Certech, is pleased to offer workshops on gel permeation chromatography and emissions and odors from materials. This is a unique opportunity to learn more from the leading experts in Europe.

Certech is managing a wide variety of analytical and research equipment in three fields of activity: environment, materials, and process intensification. Their mission is to support small and large industrial enterprises by offering contract research, product and process development capabilities, analysis as well as problem solving.

In the field of polymer analysis, Certech has expanded its instrumental capabilities and expertise in GPC for molecular weight distribution measurements with room- and high-temperature GPC systems and different detectors: DRI, viscometer, LSD, ELSD, DAD and MS. Certech's expertise in GPC is continually expanding through the development of new methods, new applications and publications in international journals.

Certech has also in-depth expertise in VOCs sampling and analysis. The lab is equipped with several instruments for headspace GC/MS, Headspace GC/FID, thermal desorption GC/MS, and thermal desorption GC/MS/FID (dual detection). Markes as well as Gerstel thermal desorption instrumentation, all equipped with autosamplers and installed on Agilent GC/MS instruments, are available for sample analysis.

Certech is accredited for the measurement of odours and is approved for the control of atmospheric pollution by Regional authorities. It takes part to 11 committees for norms such as AFNOR, EN or ISO.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work. Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



**Location:** Certech, Seneffe, Belgium.

**Key Technologies:** GPC, ELSD, HPLC, Spectroscopy, Thermal Analysis, Microscopy

**Main Application Areas:** Environmental, Material Science

[www.certech.be](http://www.certech.be)

### Workshop highlights

#### GPC

Multidetector gel permeation chromatography (GPC) analysis, also in complementary techniques for polymer characterization as rheology, spectroscopy, thermal analysis and microscopy. HPLC/GPC preparative as first dimension for comprehensive analysis of complex mixtures.

#### VOCs and Odors

Emission measurement from materials: sample collection, preparation and detection. Data analysis and interpretation of results.

# Agilent Workshop in Collaboration with dtoLABS

Exclusive hands-on workshop from the analytical experts

## Enviro, Food, Pharma , Forensics and Toxicology

### About the workshop

Agilent Technologies, in association with dtoLABS, is pleased to offer analytical workshops in the areas of food, pharmaceutical, toxicology and environmental analysis. dtoLABS is an Analytical Excellence Center is sited very closest to Venice City and is equipped with the most innovative solutions on the market.

It was founded in 2012 through collaboration between DTO Servizi and Agilent Technologies. dtoLABS offers capabilities for the development of new solutions providing effective answers to the challenging needs of analytical chemistry. A workshop at dtoLABS on the latest instrumentation from Agilent will increase your knowledge of analytical chemistry and method development.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work. Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum six people to ensure a focused and targeted course.



**Excellence for Innovators**



Location: dtoLABS, Spinea (VE), Italy.

Key Technologies: GC, GC MS , GC/MS/MS , LC , LC/MS/MS, LC QTOF

Main Application Areas: Food, Environmental, Pharmaceutical, Toxicology

[www.dto-innovators.it](http://www.dto-innovators.it)

### Workshop highlights

<b>Pesticide Analysis in Food</b>	Sample treatment and analytical standard preparation, pesticides regulation and guidelines, acquisition method development, results interpretation and reporting, maintenance, and troubleshooting.
<b>Forensic Toxicology Method Overview</b>	Forensic and toxicology analytical approach, sample preparation extraction methods, acquisition method setup data analysis: qualitative and quantitative, maintenance and troubleshooting.
<b>Drugs of Abuse in Biological Materials</b>	Sample preparation extraction methods, acquisition method setup, data analysis: qualitative and quantitative, maintenance and troubleshooting.
<b>Volatile Organic Compounds (VOCs) Analysis</b>	Purge-and-trap principle of operation, acquisition method setup: scan and SIM. Quality control in environmental analysis, data analysis: qualitative and quantitative, maintenance and troubleshooting
<b>GC- and LC/MS/MS Method Development</b>	Introduction of triple quadrupole mass spectrometry, acquisition method setup, example of analytical method development, data file reprocessing and reporting, maintenance, and troubleshooting.
<b>Polyfluoroalkyl substances (PFAS)</b>	Sample treatment by SPE enrichments for LC MS/MS and LC QTOF analysis. Acquisition method development, results interpretation, and reporting.

# Agilent Workshop in Collaboration with LQM

Exclusive hands-on workshop from the Food & Environmental experts

## Dioxins and pesticides in food

### About the workshop

Agilent Technologies, in association with Laboratorio Químico Microbiológico (LQM), is pleased to offer workshops on the analysis of dioxins and pesticides in food and feed.

LQM is the leading laboratory and global distributor of analytical services, inspection, and consulting in the food and environmental sectors. With locations in Murcia and Seville, LQM offers a wide range of solutions in quality, food safety, and environmental matters. With the best available technology as well as highly experienced employees, LQM offers first class services. LQM is a reference laboratory in many different sectors, for example, baby food, fruits & vegetables, cereals, baked and dairy products and so on.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both very welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



Location: Laboratorio Químico Microbiológico, Murcia, Spain.

Key Technologies: LC/MS/MS, GC/MS/MS, GC/MS

Main Application Areas:  
Food & Environmental Science  
[www.lqmsa.com](http://www.lqmsa.com)

## Workshop highlights

### Analysis of Dioxins in Food and Feed: 2-Day Module

Dioxin extraction for a wide variety of food products (meat, fish, oils and so on) purification and concentration.

Analysis by GC/MS, evaluation of results according UE Regulation 644/2017 and reports issue. GC/MS data preprocessing and identification of compounds (MassHunter Qual and Quant).

### Analysis of Pesticides and Polar Compounds in Food: 2-3-Day Module

Sample preparation and extraction methods, acquisition method setup, data analysis: qualitative and quantitative, maintenance and troubleshooting.

Extraction and analysis of pesticides by GC/MS and HPLC/MS. Extraction of polar compounds according QuPPE-method and analysis by HPLC/MS. GC/MS-HPLC/MS data preprocessing and identification of compounds (MassHunter Qual and Quant).

# Agilent Workshop in Collaboration with the University of Oviedo

Exclusive hands-on workshop from the analytical spectrometry experts

## Nanoparticles, proteomics, and environmental

### About the workshop

Agilent Technologies, in association with the Analytical and Bioanalytical Spectrometry Group (GEAB) at the Chemistry Faculty (University of Oviedo), is pleased to offer you Clinical Research and Environmental workshops. This is a unique opportunity to learn more from the experts on multidisciplinary applications

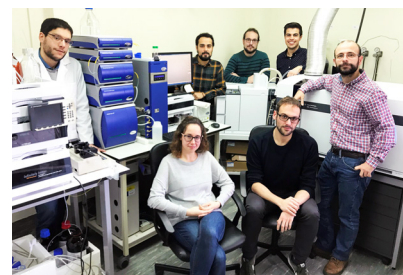
GEAB is devoted to innovative, top level research in the analytical spectrometry field, with special focus to develop ultrasensitive strategies based on nanobiotechnology and ICP-MS/MS for the quantification of (bio)molecules in samples of Clinical Research and Environmental interest. The lab has excellent expertise in integrating different separation techniques (HPLC, GC, AF4) with different photometric and ICP-MS detectors for multidisciplinary applications.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



Universidad de Oviedo



Location: Universidad de Oviedo, Oviedo, Spain

Key Technologies: ICP-MS/MS, ICP-MS, HPLC, UV-Vis, GC-ICP-MS, MALS, FLD

Main Application Areas: Clinical Research, Environmental

[www.uniovi.es](http://www.uniovi.es)

### Workshop highlights

#### Quantitative Elemental Speciation and Proteomics Solutions: 1-2-Day Module

From biological matrix to injectable sample, experimental design, sample preparation, setting the right MS and chromatography parameters for HPLC-ICP-MS (both single MS and MS/MS) with Tips and Tricks.

#### Full Characterization of Natural and Engineered Nanoparticles: 1-2-Day Module

Chemical content, purity, hydrodynamic size and nanoparticle concentration of the different nanoparticle populations present in a given sample can be obtained. Right AF4 parameters for efficient separation and full recovery. Tips and Tricks: AF4 coupled on-line to VIS-UV, fluorescence, MALS and ICP-MS (both single MS and MS/MS) detectors.

#### Quantitative Elemental Speciation in Environmental and Petroleum Samples: 1-2-Day Module

Setting the right MS and chromatography parameters for GC-ICP-MS (both single MS and MS/MS) with Tips and Tricks. Additional practical course on direct analysis of gas samples (such as biogas, natural gas, propane) by GC-ICP-MS also available.



# Agilent Workshop in Collaboration with Eurofins Analytico

Exclusive hands-on workshop from the Environmental experts

## Environmental analysis

### About the workshop

Agilent Technologies, in association with Eurofins, a world leader in food, environmental, and pharmaceutical product testing is pleased to offer you exclusive environmental workshops on the latest Agilent ICP-OES and ICP-MS instruments. Up-to-date software solutions provide the most accurate measurable data.

Eurofins Analytico, located in the Netherlands, is a fully accredited, high-tech production-driven laboratory that can deliver a wide range of environmental analytical tests in soils, groundwater, wastewater, and construction materials and residues. The workshops are typically offered in The Netherlands but are also possible at other locations.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



**Location:** Eurofins Analytico, Barneveld, The Netherlands

**Key Technologies:** ICP-OES, ICP-MS and ICP-MS-MS

**Main Application Area:** Environmental  
[www.eurofins.com](http://www.eurofins.com)

## Workshop highlights

### Environmental Workshops

ICP-OES and ICP-MS workshops: introduction, fundamentals, practical setup, data analysis and maintenance. Show how to set up your local applications and process. Hands on the instrument - hands on the software - run your own sample.



# Agilent Workshop in Collaboration with BOKU

Exclusive hands-on workshop from the IMS-QTOF experts

## Metabolomics and IMS-QTOF

### About the workshop

Agilent Technologies, in association with the University of Natural Resources and Life Sciences (BOKU), is pleased to offer you an exclusive workshop on metabolomics. This is a unique opportunity to learn more about mass spectrometry methods and IMS-QTOF fundamentals.

BOKU performs analytical method development using separation science and mass spectrometry for a wide range of applications in the field of metabolomics, including biotechnological, environmental, and food analysis. Advanced targeted (including absolute quantification) and nontargeted strategies are used in routine work supporting these applications. BOKU is an early Agilent collaborator for IMS-QTOF developments.

BOKU offers three different workshops covering IMS-QTOF, flux analysis or targeted metabolomics. The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of 5 people to ensure a focused and targeted course.



University of Natural Resources  
and Life Sciences, Vienna



**Location:** University of Natural Resources and Life Sciences (BOKU), Vienna, Austria.

**Key Technologies:** LC/QTOF, IMS-QTOF, GC/QTOF, LC, IC, GC and CE, ICP-MS

**Main Application Areas:** Metabolomics, Environmental, Food.

[www.boku.ac.at](http://www.boku.ac.at)

### Workshop highlights

#### IMS-QTOF

Introduction to fundamentals, practical method development and data analysis using low field drift tube IMS-QTOF.

#### Flux Analysis

Mass spectrometric methods for metabolic flux analysis with a strong focus on GC/QTOF and automated derivatization strategies.

#### Metabolomics

Advanced absolute quantification approaches for targeted metabolomics using MS/MS platforms and isotopologue dilution analysis.

# Agilent Workshop in Collaboration with the FHNW

Exclusive hands-on workshop from the  
Metabolic Profiling experts

## Method transfer and workflow optimization



University of Applied Sciences and Arts  
Northwestern Switzerland

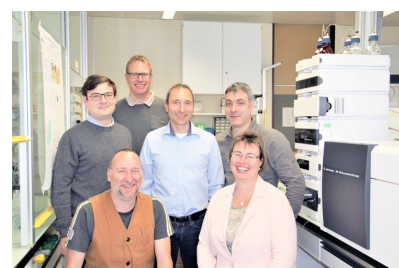
### About the workshop

Agilent Technologies, in association with the University of Applied Sciences and Arts Northwestern Switzerland (FHNW), is pleased to offer you an exclusive method transfer and workflow optimization workshop on Agilent GC/MS and LC/MS instruments.

The analytical chemistry group specializes in metabolic profiling of natural products and biofluids, pharmaceutical, chemical, environmental, and nutritional analysis, as well as biomarker identification and quantification. In various research collaborations with partners from industry FHNW develops and optimizes methods and workflows for business applications.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise. This allows you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of 5 people to ensure a focused and targeted course.



Location: University of Applied Sciences and Arts Northwestern Switzerland (FHNW), Basel, Switzerland

Key Technologies: LC/MS/MS, LC-QTOF, UHPLC, GC/MS

Main Application Areas: Environmental, Pharma, Chemical & Nutritional Analysis.

[www.fhnw.ch](http://www.fhnw.ch)

### Workshop highlights

#### Method Transfer and Workflow Optimization

Startup method transfer from conventional LC systems to UHPLC: practical aspects of critical system parameters, software tools, tips and tricks for UHPLC method optimization.

Method development and optimization for GC/MS (single Quadrupole) with Mass Hunter.

Method development and optimization for LC/MS and high-resolution LC/MS/MS with Mass Hunter.

Sample preparation for GC/MS and LC/MS.

# Agilent Workshop in Collaboration with Lipidomix

Exclusive hands-on workshop from the Online-SPE experts

## Online-SPE workshop

### About the workshop

Agilent Technologies, in association with Lipidomix GmbH, is pleased to offer you an exclusive workshop on online-SPE. This is a unique opportunity to learn more about LC/MS/MS solutions.

The main competence of Lipidomix is targeted lipidomics analysis, especially the multitarget analysis of more than one hundred oxygen metabolites from fatty acids in one single sample run from body fluids, tissues, and other biological materials. These oxilipins are high-potential hormones. Their quantitative profiling helps to understand physiological processes like inflammation, blood pressure, pain and others.

For that, high-end LC/MS/MS instrumentation is necessary. Online-Solid-Phase-Extraction (online-SPE) is a powerful tool for sample clean up, enrichment, and large volume injection.

The content and agenda of the workshops are flexible and can be adjusted to the attendees' level of expertise. This allows you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from this two- to three-day hands-on workshop. Group size is limited to a maximum of five people to ensure a focused and targeted course.



Location: Lipidomix, Berlin, Germany  
KeyTechnologies: LC/MS/MS, Online-SPE  
Main Application Areas: Chemical, Pharmaceutical Analysis.  
[www.lipidomix.de](http://www.lipidomix.de)

## Workshop highlights

### Online-SPE: 2-Day Module

Instrument configuration and software setup, choice of suitable solid and mobile phases.  
Method development considering time and solvent saving tips and tricks.

Demonstration of typical applications such as cleanup of glyphosate-FMOC, extreme large volume injection of drinking water, injection of large volumes of organic solvents.

Test measurement of own samples.

Time can also be allocated for discussion and brainstorming.

# Agilent Workshop in Collaboration with Analytical Innovations

Exclusive hands-on workshop from the Analytical experts

## Analytical Workshops

### About the workshop

Agilent Technologies, in association with Analytical Innovations are pleased to offer you bespoke analytical workshops across a variety of sectors. This is a unique opportunity to learn more about multiple technologies in your application field and each of the attendees are encouraged to bring their own samples to work on during the workshop.

Analytical Innovations offer contract chemical analysis services to companies across the entire chemical sector, ranging from forensic and pharma companies through to agrochemical and automotive testing.

They are based in the rural surroundings of Wheatley Park, Mirfield, West Yorkshire and provide companies with method development, troubleshooting, method validation and routine analysis services across a range of analytical platforms. They specialise in higher end mass spectrometry analysis, particularly HPLC-QTOF, HPLC-QQQ and GC-MS and also have experience of setting up a GMP facility within a method development environment using MassHunter software.

The content of the workshops can be user-defined and adjusted depending on the users' requirements and levels of expertise. They are best suited to small groups (2-3 attendees) in which the attendees will receive a combination of presentation-style and hands-on training over 2-3 days that is tailored to their specific needs ensuring it is relevant to their daily work.



**Location:** Mirfield, West Yorkshire, UK

**Key Technologies:** LC-QTOF, LC-QQQ, GC-MS, ICP-MS, LC, GC, IC and Multi-variant analysis

**Main Application Areas:** Drugs of Abuse, Pharmaceutical & Speciality Chemicals

[www.analyticalinnovations.co.uk](http://www.analyticalinnovations.co.uk)

## Workshop highlights

### Analytical Workshop: 2-3 Day Module

Analytical Innovations offer a wide range of training courses/workshops across a variety of different analytical platforms with particular expertise in LC-MS and GC-MS. The content of the workshops can be user-defined, allowing the content of the course to be tailored to the customers' specific needs, and adjusted to suit beginners through to experienced users. The main workshops will be focused on advanced QTOF/QQQ and GC-MS method development training with typical samples including drugs of abuse, forensic samples, pharma and over-the-counter medicines.

# Agilent Workshop in Collaboration with the University of Antwerp

Exclusive hands-on workshop from the environmental and forensic toxicology experts

## Environmental and Forensic Toxicology

### About the workshop

Agilent Technologies, in association with the Toxicological Centre of the University of Antwerp (TC-UA), is pleased to offer analytical workshops in the areas of toxicology and environmental analysis. The TC-UA has a longstanding experience, analytical skills and instrumental capabilities related to 1) environmental and human toxicology, with emphasis on legacy and emerging contaminants, and 2) forensic toxicology, through the analysis of illicit drugs, pharmaceuticals, and poisons in biological matrices. The TC-UA works under the ISO17025 quality system.

A workshop at TC-UA on the latest instrumentation from Agilent will increase your knowledge of analytical chemistry and method development for a variety of applications in the field of environmental and forensic toxicology.

The content and agenda of the workshops are flexible and can be adjusted to the attendee's level of expertise, allowing you to spend time on content that is essential for your daily lab work.

Beginners as well as experts are both welcome and can benefit from a two-day hands-on workshop. Group size is limited to a maximum of three people to ensure a focused and targeted course.



**Toxicological Centre**  
University of Antwerp



**Location:** Toxicological Centre, Antwerp, Belgium.

**Key Technologies:** GC/MS/MS, GC/MS, LC/MS/MS, LC/QTOF, 2D-LC Ion Mobility QTOF

**Main Application Areas:** Environmental and Forensic Toxicology

<https://www.uantwerpen.be/en/research-groups/toxicological-centre/>

### Workshop highlights

#### Environmental Analysis

Sample preparation extraction methods, acquisition method setup for GC/MS, GC/MS/MS and LC/MS/MS (including tips and tricks how to optimize conditions, including hands-on work in the lab), data analysis: qualitative and quantitative, maintenance and troubleshooting.

#### Forensic Toxicology Method Overview and Illicit Drugs and Pharmaceuticals in Biological Matrices

Forensic analytical approaches, compatibility with ISO quality systems, sample preparation extraction methods, acquisition method setup for GC/MS (scan and SIM), GC/MS/MS and LC/MS/MS (MRM), data analysis: qualitative and quantitative, data interpretation, maintenance and troubleshooting.



# Agilent Workshop in Collaboration with the University of Duisburg-Essen

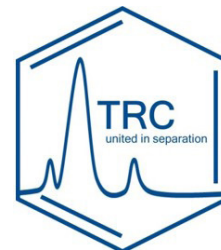
Exclusive hands-on workshops from the Chromatography and mass spectrometry experts

## Separation techniques

### About the workshop

The Teaching and Research Center for Separation (TRC), managed by Prof. Oliver J. Schmitz at the University of Duisburg-Essen (Germany), is part of Agilent's global network of world-class Centers of Excellence. The state-of-the-art center features Agilent's gas and liquid chromatography systems as well as a variety of its mass spectrometry instruments. The TRC is well-known for application of multidimensional chromatographic methods, the development of new ion sources for mass spectrometry and for the coupling of ion mobility mass spectrometry with chromatographic separation techniques.

TRC offers six different workshops covering LC, 2D-LC, GC, 2D-GC, MS, IM-MS, CE, ICP-OES/MS. Beginners as well as experts are both welcome and can benefit from these 3-day workshops. Group size is limited to a maximum of 15 people (three practical courses with a maximum of 5 participants in parallel).



**Location:** University of Duisburg-Essen, Essen, Germany

**Key Technologies:** 2D-LC, LCxLC-MS, LC-QTOF, LC-QQQ, IMS-QTOF, GC-QTOF, CE, ICP-MS, ICP-OES

**Main Application Area:** Metabolomics and lipodomics

<https://www.trc-separation.com/>

<https://www.uni-due.de/aac/>

### Workshop highlights

**Basic Course Liquid Chromatography**  
**Advanced Course Liquid Chromatography**  
**One and Two Dimensional Gas Chromatography**  
**GC-MS**  
**LC-MS incl. IM-MS**  
**CE, ICP-OES, ICP-MS**

The 3-Day courses are split into lectures (given by Prof. Oliver J. Schmitz), tutorials and high-quality practical courses.

In the practical courses we use the latest analysis systems provided by Agilent. These courses are for employees of industry (laboratory assistants, technicians, laboratory heads etc.) and employees of research facilities and universities (students, post-docs etc.). Attendees get a certificate of attendance.

## Discover Agilent University

If you are interested in further training courses please take a look at the Agilent University.



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