

**John Dolan i firma Polygen Sp. z o.o.
zapraszają do udziału w III edycji szkolenia:
„HPLC Master Classes”.**

Szkolenie odbędzie się w dniach **19-22.05.2015 r.** w **Centrum Nauk Biologiczno-Chemicznych Uniwersytetu Warszawskiego ul. Żwirki i Wigury 101, Warszawa** (dojazd od ul. Banacha, wejście do budynku Centrum od strony Wydziału Biologii) – mapka poniżej.

Szkolenie poprowadzi **John Dolan** (w języku angielskim) – znany i ceniony na całym świecie specjalista w zakresie chromatografii ciekowej.

Koszt udziału w szkoleniu:

Jeden dzień – 1.900,00 zł netto / os.

Dwa dni – 2.200,00 zł netto / os.

Trzy dni – 2.500,00 zł netto / os.

Cztery dni – 2.800,00 zł netto / os.

Koszty uczestnictwa **nie obejmują** noclegów.

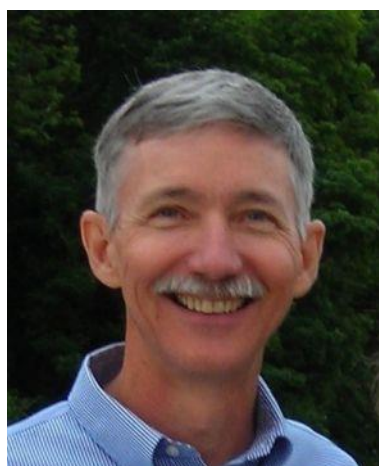
Zgłoszenia należy przysyłać do **08.05.2015 r.** na adres: polygen@polygen.com.pl

Rejestracja również poprzez stronę internetową: <http://www.polygen.com.pl/konferencje.html>

Ilość miejsc ograniczona. Decyduje kolejność zgłoszeń.

Program szkolenia (opis szkoleń w skrócie poniżej):

- Dzień 1: [LC-MS/MS for Chromatographers](#)
- Dzień 2 i 3: [Advanced HPLC Method Development, Using Quality by Design \(QbD\)](#)
- Dzień 4: [HPLC and UHPLC Troubleshooting: A Performance Qualification Approach](#)



John Dolan – dobrze znany w społeczności chromatograficznej, jeden z czołowych ekspertów w prowadzeniu szkoleń. Wniósł ogromny wkład w rozwój praktycznych narzędzi, które pozwalają na szybkie opracowanie nowych metod HPLC (m.in. współtwórca oprogramowania DryLab).

Założyciel i kierownik laboratorium analitycznego LC Resources. Od wielu lat współpracuje z przemysłem farmaceutycznym pomagając w rozwoju metod i analiz HPLC przy wytwarzaniu leków, substancji leczniczych oraz próbek bioanalitycznych.

Jego badania przyczyniły się do stworzenia podstaw dla zrozumienia elucji gradientowej oraz selektywności kolumn. Jest autorem ponad 100 publikacji oraz współautorem trzech książek: „Troubleshooting LC Systems”, „High-Performance Gradient Elution” oraz „Introduction to Modern Liquid Chromatography”. Jest autorem ponad 300 artykułów miesięcznika LCGC.

Jako instruktor przeszkolił ponad 15.000 słuchaczy/uczestników kursów na całym świecie w zakresie technik HPLC i LC-MS/MS.

Wtorek, 19.05.2015 r.

LC-MS/MS for Chromatographers

An introduction to the use of LC-MS/MS, with an emphasis on the analysis of drugs in biological matrices.

Who should take this course?

This course is designed to provide basic knowledge and practical applications of LC-MS for liquid chromatographers. Most of the examples emphasize the most popular use of LC-MS/MS today: the analysis of drugs in metabolites in biological extracts. Although no previous experience with HPLC is necessary, the course will be especially valuable to those with some chromatography experience.

What does it cover?

This is a one-day version condensed from the normal two-day class.

LC-MS for Chromatographers is a course explaining the principles of mass spectrometric detection, the design and operation of mass spectrometers, and the interfacing of the MS to the liquid chromatograph to obtain both qualitative and quantitative data. This course covers:

- MS operation, including the operation of the most popular LC-MS interfaces
- How a quadrupole mass filter works
- MS calibration and optimization
- Ion production, fragmentation and detection
- Operation in MS, MS-MS, and MS-MS-MS modes
- Structure determination by product ion analysis

What will I get from this course?

You will learn how a mass spectrometer works, the advantages (and limitations) of adding mass spectrometric detection to your liquid chromatographic analyses, and how to use MS to approach separation and detection problems intractable by other methods. By understanding the central roles of the LC-MS interface and the molecular ion, you will have a solid grounding on which to further build your LC-MS expertise. You will receive a printed copy of the slides included in this course plus notes on the most important points for each slide. The instructor is available to answer student questions during the class.

Środa – Czwartek, 20-21.05.2015 r.

Advanced HPLC Method Development Using Quality by Design (QbD)

The central tenant of Quality by Design (ICH Q8) is that quality cannot be tested into a product – instead it must be designed into the product. When the product is an HPLC method, QbD strategies can guide the development process to result in a standardized method development process, more easily validated methods, and methods that are easier to use and adjust in routine applications.

This 2- day class is designed for laboratory workers involved in HPLC method development as well as those who must transfer of existing methods into a routine laboratory. The class focuses on separation fundamentals and applies them in a time-proven strategy that applies QbD principles to developing robust HPLC methods quickly. Based on the instructor's extensive experience in a laboratory supporting pharmaceutical and bioanalytical methods, the attendees should gain practical skills to develop realistic HPLC methods in a short time. The techniques can be used as a stand-alone strategy or added to existing development procedures to help streamline the process. The course content assumes a basic understanding of HPLC, but not necessarily experience in method development. Students will be introduced to HPLC method development software to help find satisfactory separation conditions. Attendees will receive a comprehensive set of course notes, including copies of all visual materials presented.

Contents

Day 1

Section 1 – Introduction to HPLC Method Development

Section 2 – HPLC Basics

Section 3 – HPLC Columns

Section 4 – Reversed-Phase Separation

Section 5 – Dealing with Ionic Samples

Section 6 – Equivalent and Orthogonal Columns

Day 2

Section 7 – Gradient Elution

Section 8 – Quality by Design

Section 9 -- Normal Phase and HILIC

Bonus Options

Chiral Separations

Ion-Exchange Chromatography

HPLC – UHPLC tradeoffs

Quality Issues

LC-MS

Sample Preparation

The normal class covers Sections 1-9. Depending on the interests of the particular group of attendees and the remaining time, one or more of the Bonus topics may be included. Each student receives a course notebook, which contains copies of all the slides used in the class plus a written summary of the key points for each slide.

This course makes use of chromatography simulation software as a teaching tool. Course attendees will use the software to develop methods using the principles discussed during the lectures. The principles used in computer modeling are fully applicable to separations in your lab. You will learn how to do the best possible chromatography. Save hours of frustration and improve your results time after time.

Our main goal is not to get through a canned curriculum, but to provide practical help to attendees that can be applied in real situations in the lab. Students are encouraged to bring questions, separations problems, and other topics of interest to discuss during the class or one-on-one with the instructor.

Piątek, 22.05.2015 r.

HPLC and UHPLC Troubleshooting: A Performance Qualification Approach

A comprehensive short course in the isolation, correction, and prevention of liquid chromatographic problems.

Who should take this course?

This course is designed for anyone who works with HPLC or UHPLC. No previous experience with HPLC or UHPLC systems is assumed; however, much of the course will appeal to the more experienced worker. This is one of our most popular classes – one that students say is a “must take” for everyone who uses HPLC and UHPLC. Students are encouraged to bring examples of problems they have in the laboratory for discussion in the class.

What does it cover?

"HPLC & UHPLC Troubleshooting: A Performance Qualification Approach" is an intensive one-day course that teaches you the ins and outs of solving problems that occur with your LC methods. You will learn how to qualify the performance of your HPLC using specific tests that also can be used for isolating existing problems. More importantly, you'll learn how to prevent many of these problems from happening in the first place. Here's what the course covers:

- The operating principles of each module in an HPLC and UHPLC system
- A review of basic HPLC theory as it applies to troubleshooting and instrument maintenance
- Why performance qualification (PQ) is so important to ensure the reliable operation of your HPLC and UHPLC and improve the quality of your results
- Proven techniques for systematic problem-solving and instrument maintenance
- The most effective, timesaving, money saving approaches to preventing common hardware problems and method failures.

What will I get from this course?

- What you learn will demystify your instrument.
- You'll discover that understanding how each instrument module works will help you to diagnose and correct problems quickly.
- You'll find that all of the perplexing and frustrating problems your experience have simple and logical solutions.
- You'll learn how to prevent most problems.
- You'll be equipped with testing techniques to help evaluate instrument performance and to isolate problems when they occur.
- You'll find how tell the difference between equipment and separation problems.
- You'll learn how to use the appearance of the chromatogram to help diagnose the problem source and how to correct the problem.
- You'll have access to one of the world's experts in HPLC troubleshooting to help solve your specific problems.

Lecture topics

- Section 1. Principles of HPLC & UHPLC Troubleshooting
- Section 2. Performance Qualification, Part 1: Pump & Detector
- Section 3. PQ, Part 2: On-Line Mixing
- Section 4. PQ, Part 3: Chromatographic Checks
- Section 5. The Separation: Physical Problems with Columns
- Section 6. The Separation: Chemical Problems with Columns
- Section 7. Problems with Quantification

Program dnia

8:30 – Rejestracja

9:00 – 18:00 – Szkolenie (John Dolan)

10:30 – 10:45 Przerwa kawowa

12:30 – 13:30 - Obiad

15:00 – 15:15 Przerwa kawowa

17:45 – Podsumowanie