

The LC Seminar

UHPLC Performance on ANY LC Instrument

A seminar that focuses on dramatically increasing separation performance and lab productivity by using a new, high efficiency LC particle technology to achieve significantly faster run times, higher sensitivity, and greater peak capacity on any HPLC or UHPLC platform.

 **phenomenex**[®]
...breaking with tradition[™]



What you will learn

In addition to focusing on the theoretical and practical concepts of analytical liquid chromatography such as efficiency, selectivity, and system/column optimization, this workshop will introduce a new LC particle technology that not only enables standard HPLC instrumentation to achieve UHPLC separation efficiencies while delivering standard backpressures, but also delivers improved performance on UHPLC/UPLC platforms.

Who should attend

Lab Directors

- Learn how to significantly increase lab productivity and data quality with current resources and budget.

Analytical Chromatographers

- Understand the theory and practice of very high efficiency chromatography to achieve faster run times, lower the limits of detection/quantitation, and resolve complex, multi-component sample mixtures.

LC Technology Enthusiasts

- Discover a new LC column technology that achieves separation efficiencies up to 280,000 plates/meter, decreases analysis times by as much as 14x, and can be transferred to any instrument – HPLC or UHPLC.

Seminar Schedule

A Theoretical and Practical Overview of Very High Efficiency LC

Overview of high efficiency

- Affect on chromatographic separation
- Positive impacts on laboratory

Theoretical review

- Van Deemter equation
- Physical, kinetic, and thermodynamic properties

Introduction of new, state-of-the-art LC particle technology

- New technology vs. traditional particles
- Harnessing high efficiency on any LC platform

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Practical Application of New LC Technology

Performance investigation

- vs. sub 2 μm particles
- vs. 3 μm and 5 μm particles

Optimization of essential LC separation parameters

- Selectivity and loadability
- Lifetime and reproducibility

BREAK

System Optimization for Highest Efficiency Separations

UHPLC performance on current HPLC platform

- System configuration and detector considerations
- Column dimension and particle size impacts
- LC method conditions for best performance

Enhanced performance on UHPLC platforms

- Seamless transfer to new particle technology

Overview of optimal flow velocities across all platforms

- What is or is not possible based on pressure limits

The Instructor

Dr. Michael McGinley is the bioseparations product manager at Phenomenex where he is responsible for all technical aspects of Phenomenex's brand HPLC product portfolio. Prior to joining Phenomenex in 2002, Michael was at Amgen where he held several positions over a dozen year span, including Associate Scientist, Project Manager, and Laboratory Head. Michael received his degree in Biochemistry from the University of California at Berkeley and is one of the early innovators in the field of proteomics establishing the pioneering program at Amgen. Prior to that, Michael managed the protein core laboratory at the Amgen Colorado inflammatory disease research site. Michael is a recognized chromatography expert and a long-serving member of the editorial advisory board of LC/GC magazine. His fields of expertise include HPLC method development, proteomics, biofuel analysis, inflammation biology, protein characterization, and protein purification with nearly a hundred publications in the respective fields.



Steinwiesenstrasse 3 • CH-8952 Schlieren
Tel: +41 44 732 3131 • Fax: +41 44 730 6141 • Email: sales@brechbuehler.ch

Ch. de la Meunière 12 • CH-1008 Prilly
Tél: +41 21 625 5810 • Fax: +41 21 625 5812