



## **November Update**

PREP 2012 is where scientists, engineers, and suppliers of media, equipment, and technology from around the world come to focus on the cutting-edge areas of preparative and process chromatography, to learn how to solve today's practical problems, and to prepare for the future. The 25<sup>th</sup> anniversary Symposium will provide opportunities to present and discuss the latest scientific and technological advances in the field with applications to the production of fine chemicals, chiral molecules, active pharmaceutical ingredients, peptides, proteins, monoclonal antibodies, plasmids, vaccines, VLP's and other biopharmaceuticals.

**Mark your calendar, follow us on LinkedIn and [www.PREPsymposium.org](http://www.PREPsymposium.org), watch your email for program updates, and send us your suggestions.**

**In this update find:**

- [PREP 2012 Discussion Group on LinkedIn.com](#)
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### **PREP 2012 on LinkedIn.com**

Our LinkedIn discussion group is designed to promote interactions among people interested in the PREP Symposium and as a vehicle to collect comments and suggestions about PREP 2012. To find the group, simply enter "Prep Symposium" under Groups in the LinkedIn search engine. Please, join this group, submit comments, and help spread the word about PREP 2012. We are grateful to Daniel Kune for setting up this subgroup as a part of the Preparative Chromatography/Downstream Processing group.

### **Training Workshop Program**

Registration for the Sunday Training Workshops is open to meeting and non-meeting participants. Early registration is recommended and encouraged as each workshop enrollment is limited to 30 participants. Certificates of completion will be provided. Register online at [www.PREPsymposium.org/register.html](http://www.PREPsymposium.org/register.html).

**Workshop 1: Sunday, July 15, 9:00am - 12:15pm**

#### **[Preparative Chromatography for Biopharmaceuticals](#)**

*Lecturers: Giorgio Carta, University of Virginia*

*Alan K. Hunter, MedImmune*

*Alois Jungbauer, BOKU, Vienna*

This workshop will focus on the theory and practice of biomolecule chromatography. Since mass transfer and the structure of the stationary phase influence deeply chromatographic performance, the main emphasis is on describing adsorption/desorption kinetics in single and multicomponent systems and determining the relationship between stationary phase properties and process performance. The latest advances in stationary phase developments will be reviewed along with

methods for their experimental characterization. Design and optimization strategies for capture and high-resolution applications will be discussed.

**Topics:** Adsorption equilibrium and transport in single and multicomponent systems; Stationary phases for small and large biomolecules; Design and optimization for capture and resolution steps.

### **Workshop 2: Sunday, July 15, 9:00am – 12:15pm**

#### **Preparative Chromatography for Intermediates and APIs**

*Lecturers: Olivier Dapremont, Ampac Fine Chemicals  
Kathleen Mihlbachler, New Jersey Institute of Technology  
Larry Miller, Amgen*

This workshop will focus on development of method for the preparative purification of small molecules for the pharmaceutical industry. After an introduction of the theory, optimization and practice of prep HPLC, SMB and SFC for small molecule separations, the instructors will present practical approaches to the development of preparative separation through a series of examples. The attendees will learn valuable information and techniques to apply in the laboratory and at manufacturing scale to increase throughput and performance.

**Topics:** Prep HPLC batch - Theory, optimization and practice; SMB - Principle and technology; SMB - Examples and applications; SFC - Theory, equipment and examples

### **Workshop 3: Sunday, July 15, 1:30pm – 4:30pm**

#### **Bringing Pharmaceuticals and Biomolecules to Market (and keeping them there)**

*Lecturers: Lois Ann Beaver, LAB Enterprises  
Joan Newburger, Johnson & Johnson Consumer Products Worldwide*

This workshop will focus on Quality by Design, Quality Systems Management, Science-based Risk Management, Process Analytical Technology and Continuous Process Improvement as tools that can be incorporated into basic drug development processes. We will examine the relationship between good drug development science, quality and regulatory flexibility, with emphasis on application to the biopharmaceutical industry. Particular attention will be placed on the practice of Quality by Design. A practical study of how the integration of quality and risk management is used in an application to bring a mAb to market will be presented. In addition, we will address the challenges for technology and regulation created by the emerging biosimilars industry along with the current status of internationally developed guidance.

**Topics:** Regulatory aspects, QbD, Process Analytical Technology, Quality System Management, Biosimilars, Marketing

### **Vendor Exhibits and Workshops**

The Exhibit will provide access to the latest advances in media, equipment, and services. The program is structured to ensure ample opportunities to meet commercial suppliers who will feature state-of-the-art instrumentation, equipment, stationary phases, columns, etc. in the closely integrated lecture and poster/trade display areas within the facility. Exhibitors will also have the opportunity to present sponsored vendor workshops that are free to registered Symposium participants.

### **Preliminary Keynote Sessions**

In addition to general sessions, PREP 2012 will feature several keynote technical sessions addressing critical and emerging areas in preparative chromatography. The following tentative keynote sessions have been planned thus far. If you are interested in a particular topic, please contact the organizing committee with your suggestions.

#### **Industrial Case Studies in Protein Chromatography**

Session Organizer: Giorgio Carta, University of Virginia

#### **Industrial Case Studies in Continuous Chromatography**

Session Organizer: Olivier Dapremont, AMPAC Fine Chemicals

#### **Preparative Supercritical Fluid Chromatography**

Session Organizer: Georges Guiochon, Univ. of Tennessee

#### **Small and Medium Scale Prep for Pharmaceutical Product Development**

Session Organizer: Chris Welch, Merck & Co., Inc.

#### **Large Scale Chromatography Columns and Systems**

Session Organizer: Igor Quinones-Garcia, Shire

## Poster Sessions

PREP 2012 will feature poster sessions on Monday and Tuesday. Best posters prizes will be awarded.

## Academic Travel Award Program

Thanks to the generosity of several sponsors that have pledged support, we are pleased to announce that PREP 2012 will be able to provide limited travel funds to participants from academic institutions who will be authors or co-authors of an accepted oral or poster paper. Priority for funding will be given to young faculty (in the first five years of their first academic appointment) and graduate students, since we believe the future of this critical field depends highly on being able to train and motivate young scientists.

## Call for Papers

The Symposium will provide opportunities to present and discuss the latest scientific and technological advances in the field, an exposure to the most recent chromatography products and technologies on the market, and training and continuing education leading to the ability to optimize processes and minimize costs in the production of fine chemicals, chiral molecules, active pharmaceutical ingredients, peptides, proteins, monoclonal antibodies, plasmids, vaccines, VLP's, and other biopharmaceuticals. To submit abstracts for oral or poster presentation, please see details posted at [www.PREPsymposium.org](http://www.PREPsymposium.org).

## Topics include

- Preparative HPLC
- Protein chromatography
- Monoclonal antibodies and other Biopharmaceuticals
- VLPs
- Chiral molecules
- Supercritical Fluid Chromatography
- Fine chemicals
- Active pharmaceutical ingredients
- Peptides
- Plasmids
- Vaccines
- Amino acids
- Sugars
- Rare earths
- New and improved stationary phases
- Monoliths
- Modeling and optimization
- Fundamentals
- Countercurrent chromatography
- Simulated moving bed chromatography

## Key Dates

Feb. 1, 2012      General abstract deadline  
April 2, 2012      Deadline for late-breaking posters  
April 2012        Preliminary Program posted  
June 15, 2012    Final deadline for poster abstracts  
July 15-18, 2012 PREP 2012, Boston

## Contact

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## Organizing Committee

Giorgio Carta, University of Virginia (Chair)  
Lois Ann Beaver, LAB Enterprises  
Olivier Dapremont, Ampac Fine Chemicals  
Georges Guiochon, University of Tennessee  
Igor Quinones-Garcia, Shire  
Christopher Welch, Merck & Co., Inc.

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