



PREPARATIVE CHROMATOGRAPHY

JEFFERSON INSTITUTE FOR BIOPROCESSING INDUSTRY BIOPROCESS TRAINING (IBioT) PROGRAM

July 22 - 24, 2019

October 16 - 18, 2019

Jefferson Institute for Bioprocessing

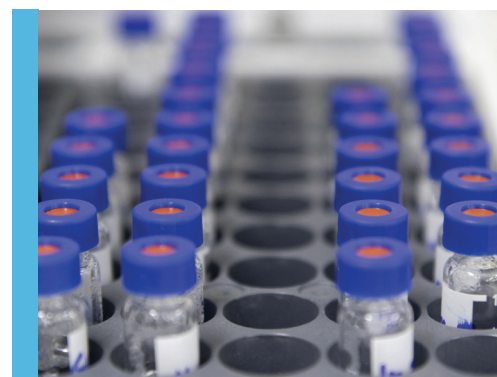
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COURSE PROGRAM SYNOPSIS

Preparative chromatography is a critical unit operation in the biopharmaceutical industry for purification of biologics. A modern platform process for purification of monoclonal antibodies, for example, includes two or more chromatography steps. The impact of chromatography on product quality attributes and process economics is significant. Major advances in scale-up and scale-down methods combined with the introduction of new resins and column packing techniques are transforming the way chromatography columns are designed and operated.

While batch chromatography continues to be the unit operation of choice in industry, development of new continuous chromatography technologies promises radically new approaches to the downstream purification of biologics. These advances, combined with increasingly stringent regulatory expectations for biotherapeutics, require highly focused (re)training of industry professionals responsible for this unit operation.

This 2½ day course in process column chromatography is designed and delivered by subject matter experts, specifically to advance each participant's technical understanding of process chromatography for biomanufacturing.



TOPICS COVERED AND KEY LEARNING OUTCOMES

- Commercial scale applications of process chromatography for biologics
- Chromatography platform process—affinity, ion exchange, hydrophobic and mixed mode
- Bioprocess design and operation aspects of chromatography
- Understanding linear and non-linear adsorption equilibria
- Understanding chromatography, resolution, purity and yield
- Understanding gradient and step elution—why and how
- Packing techniques and evaluation for commercial-scale chromatography
- Impact of packing on column purification performance
- Understanding column pressure drop and its impact on column performance
- Scale-down and scale-up methods in chromatography
- Modeling chromatographic operation
- Industrial CASE Studies—include proteins and monoclonal antibody therapeutics
- Column sanitization, resin life time
- Recent advances in chromatography—towards continuous and single chromatography
- Axial vs. radial flow chromatography
- Chromatography control and monitoring
- Process optimization and tech transfer to manufacturing

LOCATION

The course will be held at the state of the art Jefferson (University) Institute for Bioprocessing, a 25,000 sq. ft. fully flexible cGMP-like facility approximately 20 miles northwest of Philadelphia with close access to the Philadelphia International Airport, highways, hotels, and restaurants.

FEE

The course fee is \$3,000 per attendee, and includes all lab equipment and supplies, handouts and materials. Breakfast, lunch, snacks and one course dinner are also included. If requested, the Jefferson Institute for Bioprocessing team can assist in securing convenient accommodations.

ACCOMMODATIONS

Residence Inn by Marriott Philadelphia Montgomeryville

1110 Bethlehem Pike
North Wales, PA 19454
267-468-0111

Hampton Inn & Suites Philadelphia Montgomeryville

121 Garden Golf Blvd.
North Wales, PA 19454
215-412-8255

Courtyard by Marriott Philadelphia Montgomeryville

544 Dekalb Pike
North Wales, PA 19454
215-699-7247

Candlewood Suites Philadelphia- Willow Grove

250 Business Center Dr.
Horsham, PA 19044
888-614-3125

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