

Fundamentals of downstream processing of biopharmaceuticals

Course information :

Duration:	3 days, with 1.5 days hands-on practical
Net Price :	2'700 CHF, this includes lecture notes, 3x lunch, coffee and snacks
Location:	Biofactory Competence Center in Fribourg, Switzerland
No. of attendances:	A maximum number of 10 participants is accepted
Course-language:	English (for French or German, please contact us)
Registration:	Please register on our website , or contact info@bcc.ch for further information

What are the learning outcomes ?

- ♦ To be able to design a DSP process based on proteins properties
- ♦ To understand the properties of contaminants
- ♦ To define which resins to use and how to combine them
- ♦ To be able to pack columns and characterize them
- ♦ To enable buffer selection
- ♦ To be able to perform different types of filtration (dead-end, TFF...)

Program :

Day 1	Morning : Lectures on bioprocesses, protein properties and basic chromatography Afternoon : Practical 1, Introduction to chromatography units - Perform IEX-run with pre-packed column - IEX
Day 2	Morning : Lectures on Gel filtration chromatography (SEC) and Ion-exchange chromatography (IEX) Afternoon : Practical 2, Introduction to column packing - Perform column packing manually using a preparative chromatography system
Day 3	Morning : Lectures on affinity chromatography, filtration, RP phase and mixed mode chromatography , and process examples Afternoon : Practical 3, Introduction to TFF - Perform a concentration and diafiltration of a protein solution

This program may be subject to minor changes

Further information

- ♦ Certification will be handed out to each participant at the end of course.
- ♦ Travel and accommodation are not included in the course fee. Flights can be booked to either Geneva or Zurich airport with a direct train connection from both airports to Fribourg.
- ♦ Accommodation can be booked in the Alpha-Hotel (www.alpha-hotel.ch), which is only a 5 minute walk from the Biofactory Competence Center.

“Critical Training for an Evolving Market”