

# Introduction to cross filtration principles

Duration: 2 half days

### **Course description**

Learn about membrane separation techniques used in bioprocessing with emphasis on tangential flow filtration (TFF) techniques using open and/or screen channel devices. The course provides a general understanding of the scientific principles of tangential flow filtration used in upstream and downstream processing, optimization of operating parameters, and scale-up.

In a remote practical session, we will guide you through membrane preparation and a typical protein concentration/diafiltration process step using the AKTAflux s semi-automated lab-scale system.

### Who should attend?

- R&D, process development and manufacturing personnel designing, executing, or advising on membrane unit operations in the biopharmaceutical industry
- Scientists and engineers working in primary recovery and clarification stages through to final purification steps
- Anyone interested in primary clarification of mammalian, bacterial, yeast, or baculovirus/insect cells

#### After the course, you will be able to:

- Choose the optimum membrane format or technique based on target molecule and process objective
- Define process conditions critical to the success of membrane applications
- · Evaluate experimental results for optimization and scale-up calculations

# **Topics covered**

- Tangential flow filtration theory and practice for upstream and downstream processing
- Hollow fiber and cassette materials and configuration
- Process design strategies: process development, optimization, and scale-up
- System design: hardware configuration and automation
- Remote session demonstrating a lab-scale semi-automated system for downstream concentration and diafiltration process



### 2021 pricing

Fast Trak Center	Time Zone	List Price	Product Code
Virtual training offered by Fast Trak EMEA	CET (morning)	500 (EUR)	29660165

# **General course information**

Fast Trak™ Education is one means by which Cytiva provides application training in the various aspects of bioprocessing. The courses are designed to provide a learning experience for process development and manufacturing staff.

Fast Trak offers training courses on column packing, basic chromatography, optimization and scale-up for both pilot and production scales. We also offer courses on validation issues and chromatography theory. The courses are offered in a variety of formats to meet your unique learning needs, including lab-based courses, live virtual classes, self-paced e-learning courses, and custom courses that can be delivered at your premises.

### **Cancellation policy**

In case you need to cancel your registration, the following charges will apply:

30 to 21 days prior to course:
20 to 8 days prior to course:
7 days or less prior to course:
100% of course fee
100% of course fee

If you are unable to attend after registered, you may send a colleague in your place or attend another course.

Cytiva reserves the right to modify course location, course material, substitute speakers, or to cancel the course. If the course is cancelled, registrants will be notified as soon as possible and will receive a full refund of paid fees. Cytiva will not be responsible for airfare penalties or other costs incurred due to a course cancellation.

#### **Course certificate**

Upon completion of the course, each participant receives a course certificate in which course name and course date is stated.

# **Course evaluation**

At the end of each course, you will be asked to fill in a course evaluation form. We value your opinion of the course, the speakers, the material, and presentations and use this feedback to continuously improve the courses and their contents.

### Language

Standard courses are held in English at Fast Trak Centers in USA, Sweden, Turkey, India, Singapore and Korea, unless otherwise specified. In China, most courses are in Mandarin with occasional courses in English. The courses in Germany are held in German and courses in Japan are held in Japanese. Customized courses can be presented in other languages. Please contact the Fast Trak center for more information.

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