

# Fast Trak training and education

CELLT1

## Advanced cell therapy technology

*Duration: 3 days*

### Course description

This course provides both classroom and laboratory instruction within cell therapy processes and cell manufacturing under good manufacturing practice (GMP) procedures. Divided into upstream, cell expansion, and downstream applications, practical laboratory sessions will provide beginning-to-end technical knowledge and training on industry standard equipment and reagents. Guidance to Standard Operating Procedures (SOP) development will also be discussed. Templates for SOPs are provided upon request.

Some instances of this course are presented in collaboration with the National Institute for Bioprocessing Research and Training (NIBRT), a global center of excellence for training and research in bioprocessing. NIBRT is located in a world-class facility in Dublin, Ireland.

### Who should attend?

This training course will be useful for research and development scientists, process engineers, and manufacturing technicians. A basic understanding of cell culture and corresponding techniques is required for this course.

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

- Apply detailed theoretical cell therapy process knowledge to upstream, cell expansion, and downstream applications
- Identify bottlenecks and troubleshoot your specific processes
- Perform industry standard techniques related to cell therapy manufacturing, with an emphasis on T-cell processes
- Implement strategies used for process optimization and evaluation

### Topics covered

- Overview of cell therapy workflows and cell types
- Tube welding and aseptic fluid transfer
- Cell counting
- Isolation technologies
- Transduction and vectors
- Activation process and technologies
- Cell culture media development and design
- Cell expansion and perfusion applications
- Harvesting platforms
- Final formulation and cryopreservation
- Scale-up and scale-out
- SOP development
- Process evaluation and optimization

## 2021 pricing

Training Center	List Price	Product Code
USA, Marlborough	3675 (USD)	29300621
Sweden, Uppsala	2960 (EUR)	29005231
Korea, Songdo	3400000 (KRW)	29300623
China, Shanghai	18500 (CNY)	29300622
Ireland, Dublin – NIBRT	2960 (EUR)	Register at nibrt.ie*

\* Course policies may vary, and NIBRT's terms and conditions apply. Contact NIBRT for details.

## 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.

There are hands-on training courses on column packing, basic chromatography, optimization and scale-up for both pilot and production scales. Courses on validation issues and chromatography theory are also given. The courses are run at our regional Fast Trak centers or customized 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: 50% of course fee
- 20 to 8 days prior to course: 80% of course fee
- 7 days or less prior to course: 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.

## **Travel and hotel costs**

Travel and hotel costs are not included in the course price.

## **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.

## **Lunches**

All lunches during course days are included in the course prices.

## **Material in binders**

Each course participant will receive the lectures and other relevant material in a binder.

## **Requirements for safety level S1 (L1) laboratories**

Every course participant who enters our laboratories for the practical sessions must comply with certain safety requirements. Please notice that open-toe shoes are not allowed in the lab. Obligatory protective clothing and safety devices will be provided.

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