



Life Sciences and  
Facility Management

Institute of  
Chemistry and Biotechnology

24<sup>th</sup> Aug to 1<sup>st</sup> Sept 2023

## Summer school 2023

### Advanced training course:

Cell expansion and protein expression  
in standard and single-use bioreactors

[www.zhaw.ch/lsfm](http://www.zhaw.ch/lsfm)

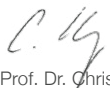


# Summer school 2023

The course provides students from the ZHAW, students from partner schools in Switzerland as well as students from abroad the opportunity of an intercultural exchange and knowledge transfer in a unique atmosphere.

Focus of the course will be a CHO cell-based antibody production and stem cell expansion in reusable and single-use benchtop bioreactors. Furthermore latest trends and developments in the field of cell culture will be discussed. The students will meet experts from the biotech industry for more discussions outside the university building an additional social programme is planned.

We are looking forward to welcoming you here in Wädenswil.



Prof. Dr. Christian Hinderling  
Head of the Institute of Chemistry  
and Biotechnology



Prof. Dr. Dieter Eibl  
Head of Biochemical Engineering  
and Cell Cultivation Technique

## Registration and further information

**Registration deadline: 31<sup>st</sup> May 2023**

**Contact: Iris Pogendorf, Research Scientist, Email: [bvt-zkt.icbt@zhaw.ch](mailto:bvt-zkt.icbt@zhaw.ch)**

## Programme information

**Award:** Course certificate, 3 ECTS, marks are awarded according to written experimental report and oral presentation.

**Requirements:** Students from B. Sc., M. Sc. and Ph.D. programmes and first year postdoctoral researchers

**Level:** Participants should be trained in aseptic working techniques

**English level:** Minimum "First Certificate" in English (FCE, University of Cambridge ESOL Examinations)

Students who did not complete the ZHAW biotechnology studies, will have to participate and pass the exam of the edX course "Cell cultivation techniques: An introduction" (<https://www.edx.org/course/cell-cultivation-techniques-an-introduction>). This will give you the theoretical basis for the summer school.

**Venue:**

ZHAW, Campus Grüental: [www.zhaw.ch/lsfm/location](http://www.zhaw.ch/lsfm/location)

**Social programme:**

BBQ, House of Chocolate

## Lab training

### Small groups of 4 persons

Cultivation of CHO cells: Inoculum and IgG production in lab scale bioreactors

Cultivation of hMSCs in t-flasks and spinner flasks

Handling of insect cells and plant suspension cells

Novel applications of plant and animal cells focussing on food and food additives

## Industry workshop

Latest developments in cell cultivation techniques

## Study and research in Wädenswil: practically-oriented, creative, passionate and reflective

The ZHAW is one of the leading Swiss universities of applied sciences. The School of Life Sciences and Facility Management currently has around 1800 students and employs more than 600 people. The educational programme comprises Bachelor's and Master's degree programmes as well as a broad range of further training and education courses.

Our expertise in life sciences and facility management in the areas of the environment, food and health enables us to make a vital contribution to solving social challenges and improving quality of life. Our success is based on dynamic institutes with extensive competence in research, development and services in the disciplines of applied computational life sciences, biotechnology, chemistry, food and beverage innovation, natural resource sciences and real estate & facility management.



Environment | Food | Health | Society  
Cross-disciplinary research in Life Sciences  
and Facility Management

## Contact

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Visit us:

