



Intro to Design & Manufacturing of Viral Vectors in Gene Therapy

October 18 - 21, 2021 | Virtual | 1-4pm EDT

This online virtual training course will provide a detailed understanding in upstream and downstream processing of viral vectors used in cell and gene therapy. The course will focus on viral vector theory, technical demonstrations of bioreactors, demonstration of chromatography, principles of tangential flow filtration (TFF) and scale-up topics.

Monday 10/18: Introduction

1. Basic principles of gene therapy
2. Systems and functions of viral vectors for gene therapy
3. Expression systems to produce viral vectors for gene therapy
4. Overview of upstream process & downstream process for manufacturing of viral vectors

Tuesday 10/19: Upstream Processing

1. Adherent vs. suspension cell culture with Transfection
2. Selection of a cell culture technique for optimal production of viral vectors
3. Adherent cell culture using fixed-bed bioreactors
4. Demonstration Design: Fixed-bed bioreactor operation
5. Suspension cell culture using stirred-tank bioreactors

Wednesday 10/20: Downstream Processing

1. Harvest and clarification technologies
2. Purification and separation techniques for viral vectors
3. Demonstration: Membrane chromatography purification process
4. Demonstration: Ultrafiltration process using a single-pass tangential flow filtration device
5. Process analytical technologies for quality control of viral vectors

Thursday 10/21: Scale-up & Future Perspectives

1. Scale-up principles and technologies for the manufacturing of viral vectors
2. Future perspectives for intensification - continuous bioprocessing
3. Demonstration Design: Process development facility tour

Class is highly interactive and limited to 20 participants.

Register today! <https://biocentriq.com/viral-vectors-in-gene-therapy/>

Questions? Contact info@biocentriq.com