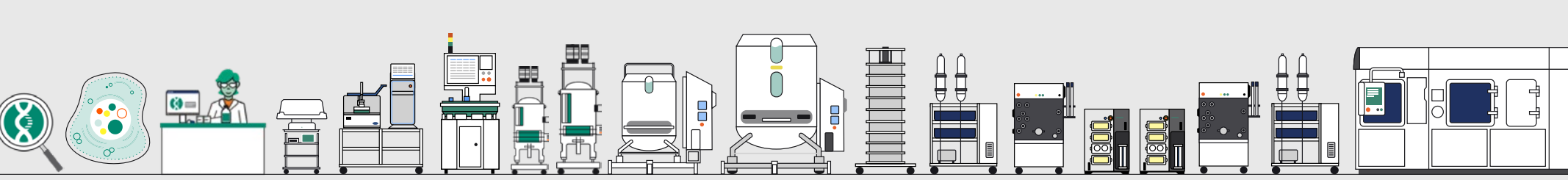


AAV manufacturing workflow

Powering viral vector production solutions from producer cells through filling.



Overcome AAV manufacturing challenges with Cytiva:

- Select the **cell line and media** that matches your therapeutic program goals/your needs
- Choose from **bioreactors for suspension and adherent cells**
- **Maximize process efficiency and recovery** while reducing in-process impurities
- Capture viral particles with **affinity chromatography**
- Reduce steps and handling with **single-use TFF filters** and closed processing
- Achieve baseline **separation of full and empty capsids**
- Optimize recovery with the **proper sterilizing-grade filters**

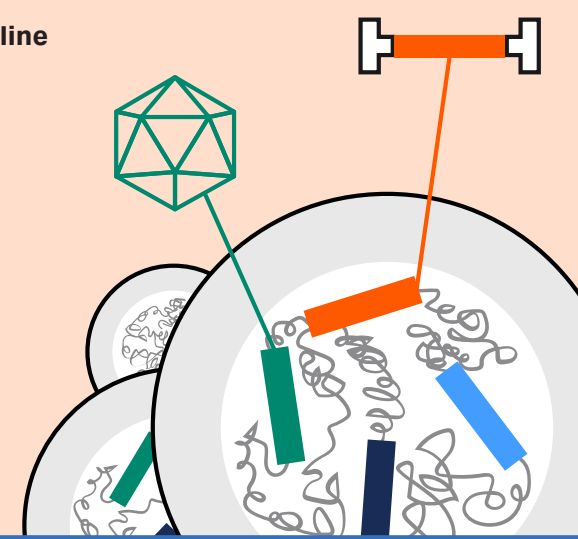
Cell line development

The **ELEVECTA™ cell line portfolio** combines innovative design and deep expertise to deliver packaging, and producer options that provide high quality and flexibility.

- The **transient cell line** is a flexible option for producing viral vectors using triple transfection to quickly advance promising candidates to clinical trials
- The **packaging cell line** eases screening of GOIs while enabling efficiencies across stages and assets
- The **producer cell line** stably integrates all four required genes; production starts by adding an induction agent

[Learn more](#)

ELEVECTA producer cell line



Upstream

Maintain flexibility with media and single-use bioreactors for both adherent and suspension cells:

- Robust and reliable
- Seamless scalability up to 2000 L
- Smart automation with data management

Article: Adherent vs suspension cell culture
Application note: rAAV scalability

Suspension cells:

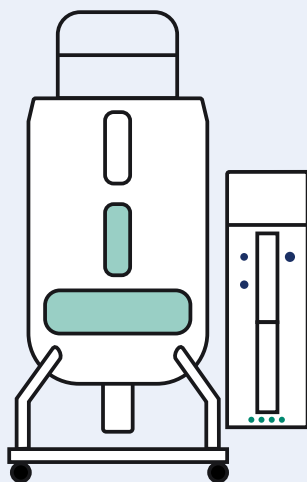
- Xcellerex™ XDR 10 L bioreactor
- Xcellerex XDR 50–2000 L bioreactors
- Xcellerex X-platform 50 and 200 L bioreactors
- ReadyToProcess WAVE™ bioreactor

Adherent cells:

- iCELLis™ fixed-bed bioreactors

Cell culture media

- HyClone™ peak expression medium
- HyClone prime expression medium



Downstream: clarification

Choose depth filtration to maximize process efficiency and recovery and to reduce in-process impurities.

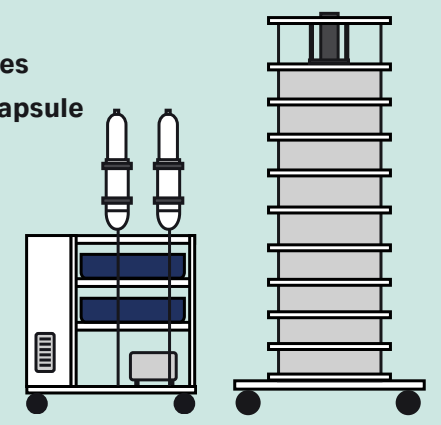
Consider a single-use automated filtration system with Stax™ capsules.

- Low hold-up volume and seamless linear scalability
- Consistency in product quality, minimized labor costs and operator errors compared with manual processing

[Learn more](#)

Allegro™ MVP system

- PDP8 + B010/V100 Stax capsules
- Supor™ EKV sterilizing-grade capsule



Downstream: capture

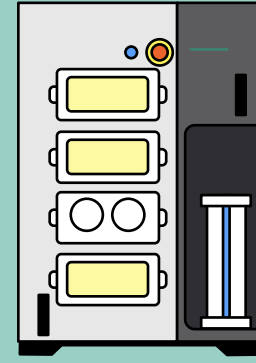
Choose modern chromatography resins to capture AAV.

- Fast throughput with prepacked formats to control bioburden and minimize changeover time
- Standardized column platform from process development to full-scale manufacturing

[Learn more](#)

ÄKTA ready™ 450 chromatography system

- Capto™ AVB affinity resin
- ReadyToProcess™ column – format available on request



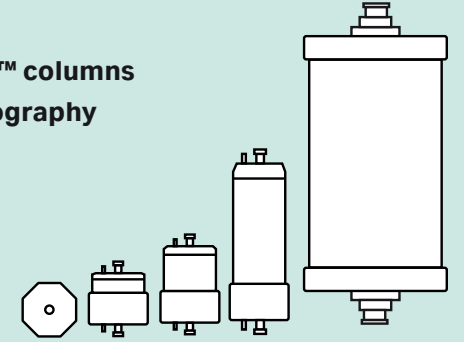
Downstream: polishing

Achieve baseline separation of full and empty capsids with high-performance anion exchange separation techniques using step-elution mode.

- Alternatives: single-use resin and reusable membrane formats
- Optimized protocols allow simple screening for different serotypes using DoE or in silico modeling

[Learn more](#)

ÄKTA ready variable UV Capto Q ReadyToProcess™ columns Mustang™ Q XT chromatography membrane capsules



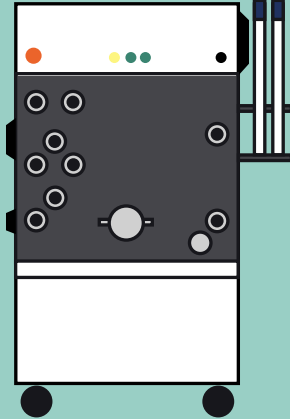
Downstream: TFF formulation

Consider a scalable tangential flow filtration system with single-use TFF filters and closed processing to reduce steps and handling.

- Minimized shear while maintaining titers
- Easy-to-operate instrument with a range of single-use flow kits supports a variety of scales

[Learn more](#)

ÄKTA readyflux™ system ReadyToProcess™ single-use hollow fiber cartridges



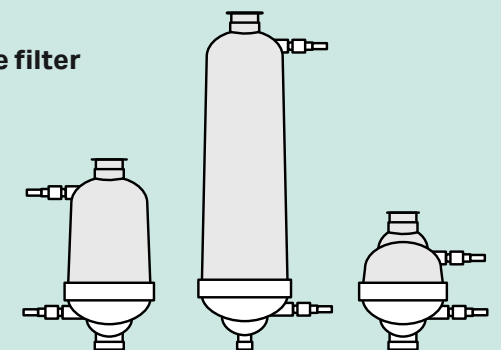
Downstream: sterile filtration

Select the proper filters that will optimize recovery.

- Utilize a laid-over-pleat membrane geometry for high flow rates and throughput performance
- A validation package supports the assurance of safety within your process

[Learn more](#)

Supor™ EKV sterilizing-grade filter



Cytiva is able to provide end-to-end solutions for each step of your manufacturing AAV. Contact us for more information on the full portfolio.