



Cell Culture Pilot Plant

Our team of cell biologists, purification experts and biochemical engineers have extensive experience in process optimization and scale-up, cell culture in bioreactors, medium development, viral infection processes, recovery and purification, and HPLC and cell-based assays. Our medium development specialists enable you to optimize culture media and develop feeding strategies to improve product yield. We excel at working with monitoring tools to develop control strategies. Our tailored analytical assays ensure a smooth transition from bench-scale process optimization all the way up to production at the 500 L pilot scale.

Building quality into your products

The Cell Culture Pilot Plant offers process development and scale-up for the production of biologics and vaccines using CHO, HEK293 and other animal cell expression systems. Our advanced bioprocessing services and equipment ensure that quality is built into your biologics and vaccines.

Services

- › Development and scale-up of batch, fed-batch or perfusion cell culture processes up to the 500 L scale for biologics production
- › Scale-up of viral production and purification processes
- › Scale-up of transient transfection processes
- › Development of cell culture media and feeding strategies for process optimization

- › In-process assay development
- › Customized, hands-on training for bioreactor operation up to the 500 L scale

Facility characteristics

- › Containment Levels 1 and 2
- › 175m² Level 2 large scale facility featuring segregated suites for medium and seed preparation, biologics production and purification (20 to 500 L)
- › Perfusion suite (3 to 20 L)

Cell culture equipment:

- › Bench-top bioreactors up to 20 L
- › 2 intermediate scale bioreactors (50 L)
- › 1 pilot-scale single-use bioreactor (200 L)

- › 1 pilot-to-process scale bioreactor (500 L)
- › Online biomass monitoring tools

Cell separation devices:

- › Continuous centrifugation systems (20 to 100 L/h throughput)
- › Acoustic filtration units (perfusion; 10 to 200 L/d)

Product concentration and purification:

- › Continuous ultracentrifugation system
- › Tangential flow filtration units
- › Automated system for filtration and chromatographic process operation
- › Multiple chromatography columns up to 45 cm in diameter
- › Storage for working cell banks

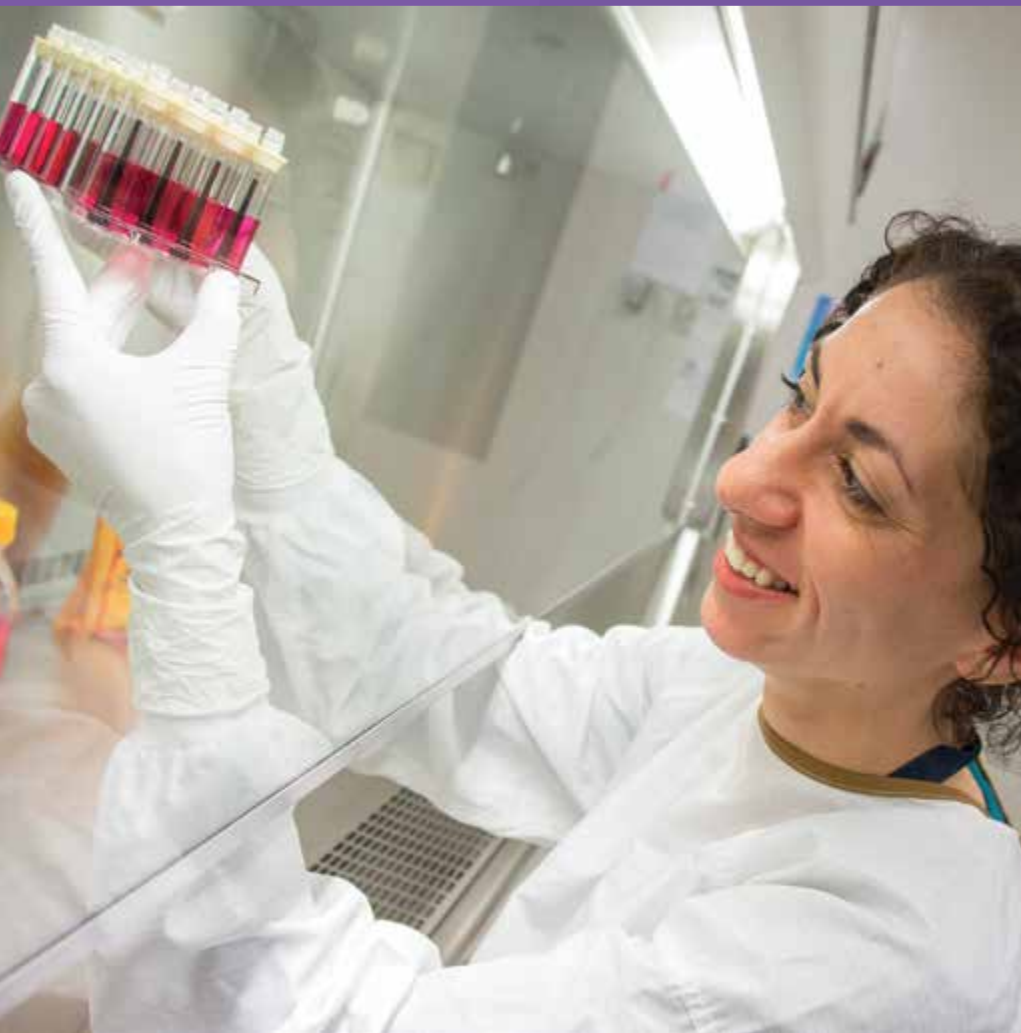
Ideal facility for SMEs

The Cell Culture Pilot Plant has been extensively used by biotechnology companies for pilot-scale production and purification of recombinant proteins, viral vectors, and vaccines. We facilitate the transfer of optimized cGMP-compatible bioprocesses to the contract manufacturing organization (CMO) of your choice. We can also act as a liaison to Canadian CMOs, and aim to foster a strong and prosperous Canadian biomanufacturing sector.



Interested?

If you need help developing or scaling-up your bioprocesses, optimizing your culture media, or developing in-process assays, we have the solution you're looking for. To access our advanced scientific infrastructure or connect with our experts, contact us today!



Why work with us?

The Cell Culture Pilot Plant's combination of services, equipment and expertise is distinctive in Canada. The versatility of our team and equipment enables us to provide customized solutions for each client, whether the goal is to develop a new process or mimic an existing one. Our team works closely with colleagues in Protein and Viral Vector Production and Analytics to provide integrated process development, from gene expression to purified and characterized biologics and vaccines for preclinical studies.

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