

Customized Training for BIOVECTRA



The Canadian Alliance for Skills and Training in Life Sciences (CASTL) developed and delivered a customized training program to support BIOVECTRA's recent expansion into pDNA and mRNA vaccine manufacturing. Over the past year (2023-2024), CASTL upskilled 25 members of BIOVECTRA's team in new technologies and processes to support a seamless operational transition at the company's new mRNA biomanufacturing centre (BMC).

BIOVECTRA's Challenges

New subject matter expertise required to provide training

Limited space, time, and resources to conduct in-house training

Restricted availability of employees to attend training due to active projects

CASTL's Solution

→ A team of industry-experienced trainers with specific knowledge of bioprocesses for nucleic acid-based therapeutics

→ A fully equipped pilot-scale, GMP-simulated biomanufacturing training facility located near BIOVECTRA's operations in Charlottetown

→ Modular, small group training sessions delivered as employees completed projects

Collaborative Development, Modular Delivery

The training program was developed through a collaborative process between BIOVECTRA management and CASTL trainers to ensure the curriculum met specific training requirements. This included incorporating BIOVECTRA's proprietary SOPs (under confidentiality agreements). The program featured three modules to cross-train employees with flexible scheduling to meet BIOVECTRA's operational needs. The program incorporated participant feedback for continuous improvement and tailored delivery to participants' experience and knowledge.

“ Having access to a facility where employees can go and learn in a safe environment without having any impact on our own operations and processes is a major asset. Moreover, CASTL's trainers were able to teach the technologies and manufacturing techniques that are outside our experience, providing real-world examples and applications.”

— Lee McKinley,
Director of
Organizational
Development

Upstream

- Aseptic practices (BSCs)
- Cell expansion and cell counting
- Single-use bioreactors
- Media analysis
- Contamination control
- Environment monitoring

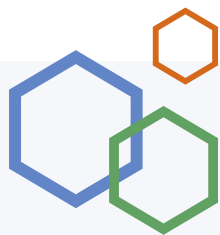
Downstream

- Depth filtration
- Micro filtration
- Ultra filtration
- Diafiltration
- Column unpacking and packing
- Chromatography column qualification and process

Fill-Finish

- Sterile filtration and aseptic transfer
- VHP sterilization
- Vial filler setup and sanitization
- Vial inspection
- Media fill
- Filter integrity testing





Trainee Feedback

Among trainees surveyed:

96%

rated the training modules as “Very Good to Excellent”

100%

rated the quality of instruction as “Very Effective to Extremely Effective”

100%

rated CASTL’s Biomanufacturing Training Facility and the standard of equipment as “Very Good to Excellent”

100%

rated their overall satisfaction with the training as “Very Good to Excellent”

“ CASTL’s training really helped to accelerate my transition from complex chemistry to biologics. While there are some similarities between these areas, many of the techniques are entirely different, so it was really good to get that hands-on experience with the equipment, aseptic practices, etc.”

— Jonathan Bethel,
Production Technician

“ The material was well planned, presented, and demonstrated on the floor. Even with varying skill levels and experience, everyone had something to take away from it. [The training] was definitely more than sufficient to bring people up to speed on the processes they’d be performing in their new roles.”

— David Doucette,
Team Lead

Outcomes

Streamlined Transitions



- Immersive learning, through a highly customized curriculum that incorporated client-specific SOPs and was heavily weighted to practical applications, significantly streamlined employees' transition into the new operational environment.
- Pilot-scale, state-of-the-art equipment and using BIOVECTRA's manufacturing floor blueprints in theoretical training enabled participants to undergo training while the BMC was still under construction.

Focused Learning



- Off-site training eliminated workplace distractions for participants and disruptions to normal facility operations.
- Small group learning provided participants with more opportunities for interactions with instructors and hands-on use of equipment.
- "Closed" learning groups allowed participants to freely discuss proprietary information as it related to new operational processes.

Increased Productivity



- CASTL's customized training significantly reduced BIOVECTRA's employee onboarding time.

About BIOVECTRA

With operations in Prince Edward Island and Nova Scotia, BIOVECTRA is a CDMO specializing in clinical-to-commercial scale production capabilities for biologics, synthetic small molecules, highly potent APIs, and bioreagents. It has recently expanded operations into pDNA and mRNA vaccine manufacturing. It currently employs 700 people across a variety of roles in science, quality, manufacturing and production, and business administration.

biovectra.com



About CASTL

CASTL delivers specialized training in biopharmaceutical manufacturing to post-secondary students and industry employees through a combination of online, virtual, and hands-on training. With state-of-the-art training facilities in Charlottetown, Montreal, and Vancouver, CASTL provides industry-informed technical skills development for Canada's growing biomanufacturing sector. It is the exclusive provider of the National Institute for Bioprocessing Research and Training (NIBRT) licensed training programs in Canada.

castlcanada.ca



Contact us to learn more
about CASTL Customized
Training Programs

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