

British Columbia Life Sciences Labour Market Intelligence Report

Executive Summary

February 2024



Land Acknowledgements

Life Sciences B.C.'s office is situated on the traditional, ancestral and unceded territory of the the x^wməθk^wəy̓əm (Musqueam), Sk̓w̓x̓wú7mesh Úxwumixw (Squamish), and səlilwətaʔt (Tseil-Waututh) Nations. We work with the broader Life Sciences Sector from across traditional, ancestral and unceded territories of British Columbia.

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British Columbia is home to Canada's fastest growing life sciences sector. A healthy labour market is critical to sustain its growth and become a world-class life sciences hub.

In recent years, British Columbia's (B.C.'s) life sciences sector has emerged as a significant driver of innovation, addressing pressing health problems while contributing to economic growth and diversification in the province.

Since 2019, the sector achieved 27% growth in GDP, making it the fastest growing life sciences sector in Canada and outpacing the growth of the overall B.C. economy.¹ Over the last decade, the biotechnology subsector alone has attracted more than US\$13 billion in private sector investments, setting the stage for future expansion.² Today, the sector is a source of high-paying jobs for more than 28,500 B.C. workers.³ It is also home to Canada's leading life sciences organizations – AbCellera, StarFish Medical, STEMCELL Technologies, and Xenon Pharmaceuticals amongst others.⁴

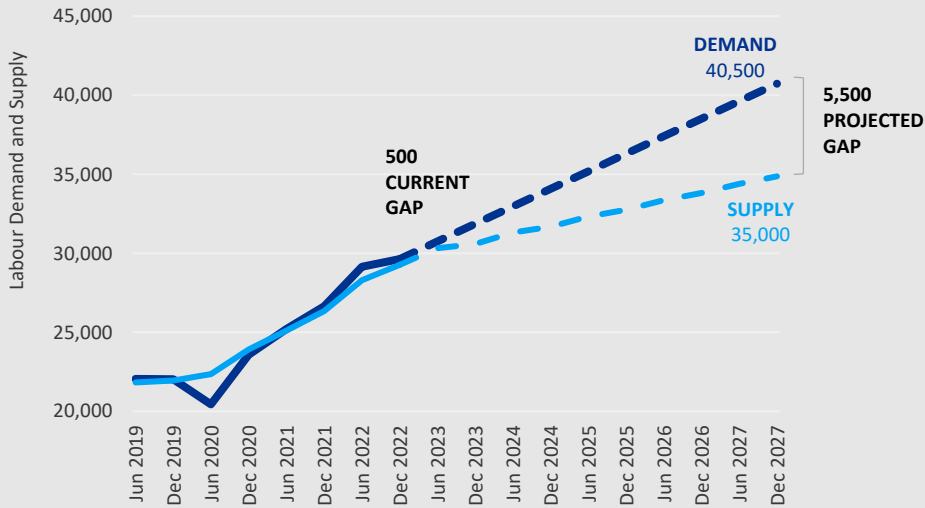
The sector is poised for growth, driven by the pace of discovery at academic and research institutions, advancement of novel therapeutics and platform technologies, and innovation in medical and digital health technologies. This expected growth is complemented by an increasing number of large life sciences companies, complemented by both provincial and national life sciences and biomanufacturing strategies. **The continued growth of the sector, however, is challenged by an increasing labour shortage.**

Over the next five years, the sector is expected to face a widening talent supply gap, projected to increase to 5,500 by the end of 2027 — a more than 10-fold increase from the current gap of 500.

Amidst its rapid growth, the sector is already facing difficulties. The demand for executive talent is high. Local talent are missing critical commercialization and business skills. Repatriation of talent is challenging. Companies looking to scale are limited by the supply of local talent.

1. Statistics Canada. Table 36-10-0402-01: Analysis of Gross domestic product (GDP) at basic prices, by industry, provinces and territories (x 1,000,000). <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610040201>.
2. Novateur Ventures Inc. (2023).
3. KPMG analysis. Note that this figure differs from the figure presented in the 2023 B.C. Sector Profile Report. Details on the differences are provided in Section 1: Overview of B.C.'s Life Sciences Sector. Additionally, [Appendix 5: Sector Definition](#) provides a reconciliation of the total business and employee counts in this report to the figures reported in the 2023 B.C. Sector Profile Report.
4. B.C. Government in collaboration with LSBC, Global Affairs Canada, Pacific Economic Development Canada (PacifiCan), and Innovation, Science and Economic Development Canada (2023). Life Sciences in B.C.: Sector Profile.

THE WIDENING LABOUR SUPPLY GAP



Together, the sector has recognized:

- The current projected supply of skilled talent will not sustain projected sector growth.
- There is a growing gap between talent skillsets and market need, creating a training gap for certain skills that help advance sector growth.
- There is a lack of resources to support companies in attracting talent and limited awareness of the opportunities within.
- The sector can do more to promote and embrace diversity, equity and inclusion, fostering a sector that creates equal opportunities for individuals to thrive in the workplace.

Without meaningful action, workforce gaps are projected to widen, which could lead to slowed growth and decreased economic output. The sector now has an opportunity to address these challenges and nurture a vital and healthy talent pool so that it can continue to create well-paying jobs, diversify the economy, and deliver health innovations to B.C. and the world.

Investing in talent is critical to transform the life sciences sector into a world-class hub.

5. KPMG analysis.
 6. B.C. Sector Profile Report (2023).
 7. Statistics Canada. Table 36-10-0489-01: Labour statistics consistent with the System of National Accounts (SNA), by job category and industry. <https://www150.statcan.gc.ca/t1/tb1/en/tv.action?pid=3610048901>.
 8. KPMG analysis.

LABOUR SNAPSHOT



B.C.'s life sciences companies employ more than 28,500 people⁵



>15% of B.C.'s life sciences labour market has graduate-level education⁶



Average compensation is 21% higher than wages across B.C., in part due to specialized skill requirements⁷



By 2027, there will be a projected gap of over 5,500 skilled individuals⁸

Establishing B.C. as a globally-recognized life sciences hub

B.C.'s emerging talent shortage poses a threat to the future of the sector. Without a robust talent pool, businesses will struggle to sustain and grow their presence in B.C.

The sector recognizes a critical gap in senior or executive-level personnel within the local talent pool who have experience in operating and scaling life sciences companies. This is a challenge not unique to B.C. – Canada's life sciences ecosystem has a limited number of experienced leaders who have led companies that have matured to commercialize and scale up manufacturing.

To help address these gaps, the sector recognizes the need to improve talent attraction and retention collectively, recommending further action through targeted, collaborative initiatives such as:

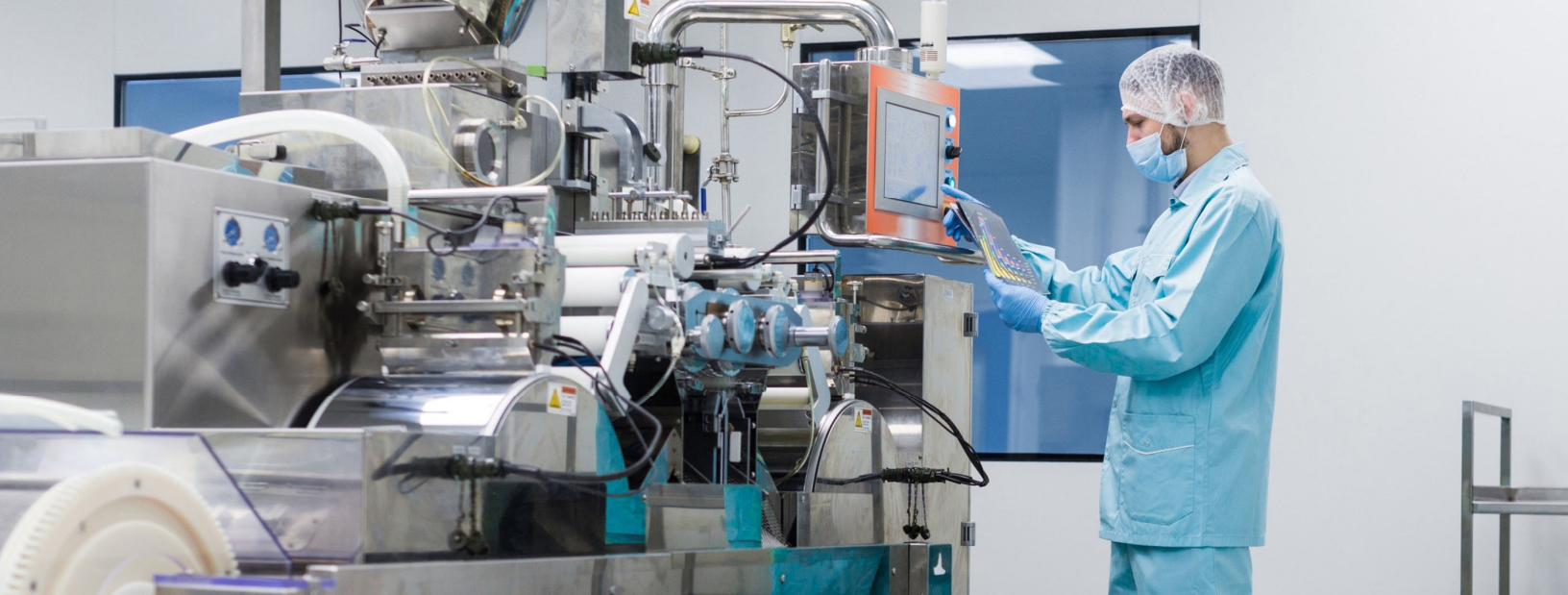
- **Improving awareness about the sector and opportunities within** – promoting the strengths of the rich ecosystem and funding infrastructure.
- **Explore innovative and creative ways to accelerate** development, attraction, and retention of top-tier talent with an ecosystem of academia, industry and established companies that can continue to attract funding.

“In today's market, scaling up from 100 to 1,000 employees is challenging. We must be deliberate in building our labour supply.”

Bill Hunter
Founder, President & CEO
Canary Medical Inc

Co-Founder, Former CEO
Angiotech Pharmaceuticals





The critical need for new skills across the sector

As a rapidly evolving knowledge-based sector, the life sciences sector requires a variety of specialized skillsets. Careers in the sector often require a combination of interdisciplinary expertise, regulatory knowledge, proficiencies in technology, and both technical skills and business acumen.

Despite strong enrollment in B.C. academic programs that supply the sector's talent pool, the sector faces stiff competition from other jurisdictions and sectors. Further, the sector is facing gaps in skills that are often acquired through experiential training and upskilling outside of a classroom.

Across the sector, stakeholders have recognized critical skills gaps including:

- Business acumen, especially with new STEM graduates and technical hires
- Leadership and management skills, including Interdisciplinary expertise
- Knowledge of quality and regulatory affairs, clinical trials and biomanufacturing
- Commercialization and marketing expertise

In addition to these core competencies, the sector has recognized the need to bridge skills gaps for

career advancement at all levels, including middle management. Many of these skill needs can be met through add-on learning, micro-credentialing and certificate training programs. Despite availability of general training at this level, gaps persist in sector-specific training opportunities.

In alignment with B.C.'s Life Sciences and Biomanufacturing Strategy, the sector is seeking continued partnership between industry and academic institutions to **enable a best-in-class training ecosystem** to ensure the training infrastructure is suited to the current and future needs of the sector.

“Continued academic and industry collaboration remains vital for bridging skills gaps and nurturing a prosperous talent ecosystem.”

Robert McMaster
Vice Dean, Research
University of British Columbia

Fostering excellence in life sciences through diversity and inclusion

It is well-recognized across the sector that investing in diversity, equity, and inclusion (DE&I) is important in fostering improved business performance and innovation.

Despite this recognition, there remain gaps between current sector practices and DE&I best practices, impacting talent recruitment, training and retention across the sector. For example, less than half of sector companies have formal programs to attract, retain, or advance a diverse workforce, such as providing DE&I training.

Workforce diversity remains unclear due to gaps in data collection and availability; however, stakeholders recognize the need for more comprehensive DE&I practices to drive sector growth and to ensure that the talent pool is reflective of B.C.'s broader society.

The sector also recognizes the need for **continued commitment to the journey of reconciliation** through building relationships with Indigenous Communities.

“Embracing diversity, equity, and inclusion is an imperative for a thriving, innovative life sciences sector. The sector has the opportunity to take on a leadership role in ensuring meaningful action on these principles within the province.”

Helen Sheridan
Chief Human Resources Officer
STEMCELL Technologies

Some companies in the sector – particularly some public companies and those with more than 100 employees – have made notable progress on their DE&I strategies and goals. Smaller companies in the sector often have DE&I business practices that are less mature – attributed to resource constraints, lack of training, or less formalized business practices. The varying degrees of DE&I progress represent an **opportunity to exchange best practices** across the sector, contributing to a more diverse, inclusive and equitable sector in B.C.

DE&I SNAPSHOT

Promoting diversity, equity, and inclusion within the life sciences sector can help address labour shortages, foster innovation, provide more equitable access to opportunities, and drive sustainable advancements that benefit society as a whole.



42%

of B.C. life sciences companies have programs supporting diverse workforce advancement



23%

of B.C. life sciences companies monitor DE&I metrics

The path forward: A call to action for B.C.'s life sciences sector

Aligned with the vision to transform B.C. into a world-class life sciences hub, the life sciences sector proposes the following strategic recommendations. These seven strategic recommendations under four pillars can empower the sector to capitalize on opportunities to lay the groundwork for a sustainable, highly-skilled B.C. life sciences market.



ESTABLISH A SINGLE VOICE FOR THE SECTOR

1. **Create a sector talent council** to prioritize and act on the life sciences sector labour and talent needs



FOSTER A GLOBALLY COMPETITIVE ECOSYSTEM

2. **Promote the development of a competitive environment for B.C.'s life sciences sector** to attract and retain skilled talent from other jurisdictions
3. **Develop a strategic talent attraction marketing plan for B.C.'s life sciences sector** to promote the sector as a highly desirable life sciences employment and economic hub



BUILD SECTOR CAPACITY AND CAPABILITIES

4. **Develop a sector-specific DE&I strategy and resources** to create a more diverse, equitable and inclusive life sciences sector in B.C. and enable the sector to tap into underrepresented communities as an immediate source of talent
5. **Enable a responsive, best-in-class training ecosystem** that builds on existing offerings to address current and future workforce needs at all career levels



INVEST IN FUTURE GROWTH

6. **Begin consultations and relationship building with Indigenous organizations** to understand how to foster meaningful sector engagement
7. Enable the acceleration of top-tier talent development, attraction and retention by **exploring innovative ways to nurture and anchor more B.C. life sciences companies**



Additional Considerations

Despite sector efforts in talent recruitment, retention and training, there remain larger economic pressures impacting the growth of the life sciences sector and the broader B.C. economy. These include cost of living, compensation relative to competing national and international sectors, and barriers with recruiting international talent.

These are issues that supersede the ability of the sector to solve on its own and will require ongoing collaboration with related sectors and the provincial and federal governments on economic development strategies. With an emerging labour supply gap, this is an opportunity for ongoing partnership between industry, government, and academia to work collectively to remove barriers and enable a world-class, competitive life sciences hub.

The participation of each sector stakeholder, including industry, government, and academia, will be crucial to evolving B.C.'s life sciences ecosystem into a world-class life sciences hub that will bring sustainable social, health, and economic benefits for generations to come.

The life sciences workforce is an investment towards improved healthcare outcomes and economic growth.



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