

Fastest Growing Industries: Biotechnology & Life Sciences

A guide for newcomers to British Columbia



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1. Overview of the Biotechnology & Life Sciences Industry

Introduction

British Columbia has one of the largest biotechnology and life sciences sectors in Canada. The province plays an important role in the growing global life sciences industry.

Sectors of the Biotechnology and Life Sciences Industry

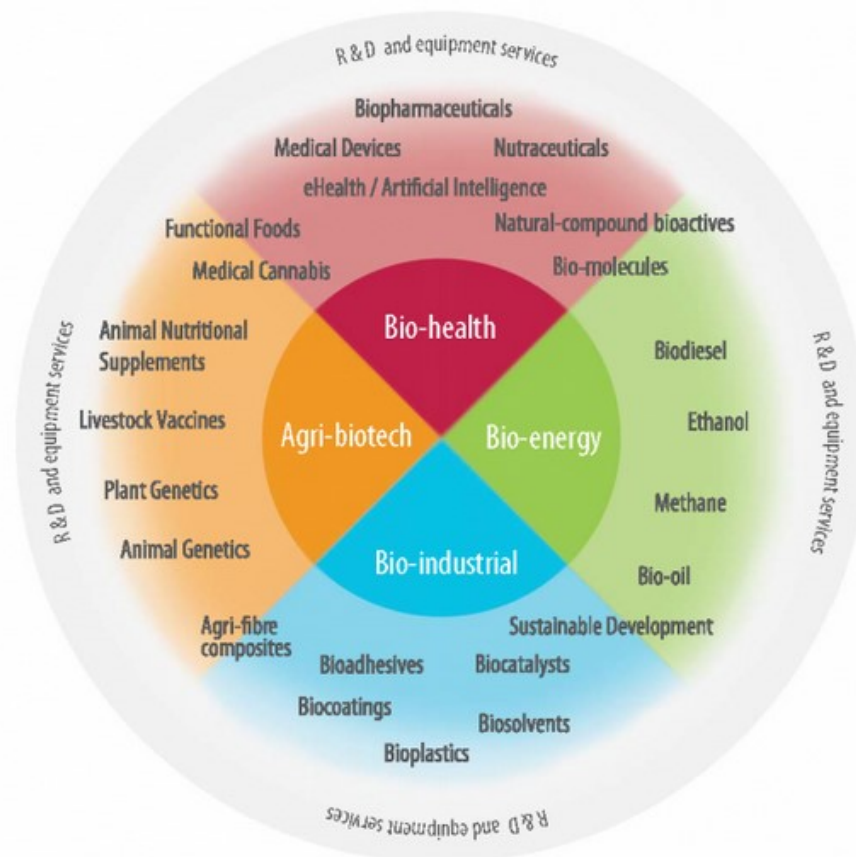


Chart from BioTalent.ca

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British Columbia is home to more than 1,150 companies involved in the biotechnology and life sciences sector. The sector employs over 17,000 people and contributes \$14.4 billion to the Province's GDP.

The life sciences sector in British Columbia includes a broad range of companies, government agencies, healthcare research organizations and academic partners.

Some of the more prominent companies and organizations in B.C. include:

- Stemcell Technologies
- Zymeworks Inc
- Kardium Inc
- AbCellera
- Xenon Pharmaceuticals Inc
- Amgen British Columbia Inc.
- Verathon Medical Canada
- Burrard Pharmaceuticals
- Genome British Columbia
- Michael Smith Foundation for Health Research
- BC Cancer Agency

Studies report that hiring and retaining workers has become a serious issue for employers. Across Canada 33% of biotechnology and life sciences employers report skills shortages and 20% have job vacancies in their companies. In addition, many more workers are soon to retire.

Newcomers to Canada are seen as a key source of talent as employers seek to meet their hiring needs. The industry has responded by creating a number of programs to attract new workers.

One such initiative is the ***Facilitating Access to Skilled Talent (FAST) Program***, offered by the Immigrant Employment Council of BC. This program helps you learn

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more about your industry, understand Canadian workplace culture, and know what skills you need in your profession to help you succeed in the Canadian workplace.

- More information: <https://fastcanada.ca/>

BioTalent Canada has a **BioSkills Recognition Program*** that helps newcomers to Canada and others gain recognition of education, skills and experience. You can showcase your abilities to employers in Canada's growing biotech sector by being recognized as *BioReady*. Being *BioReady* lets employers know you have the skills to work in certain biotech jobs in Canada's bio-economy.

- More information: <https://www.biotalent.ca/get-started/>

Clients of the Immigrant Employment Council of BC (IEC-BC), participating in the **FAST Program might qualify to submit a BioSkills Recognition Portfolio for free.*

For more information on the Biotechnology and Life Sciences sector see:

- **Life Sciences in British Columbia: Sector Profile / May 2023**
https://lifesciencesbc.ca/wp-content/uploads/2023/06/2023_lifesciences_in_bc-sectorprofile.pdf
- **Bio-Economy Facts. BioTalent Canada**
<https://www.biotalent.ca/bio-economy-facts/>
- **Life Sciences in British Columbia. Trade and Invest BC**
<https://www.britishcolumbia.ca/industries/life-sciences/>
- **Sequencing the BioReady Path: from Newcomer to Biotech Talent. BioTalent Canada. 2019**
https://www.biotalent.ca/wp-content/uploads/biotalentcanada_sequencingthebioreadypath_19_02_2020.pdf
- **Biotech & Life Sciences. FAST Sector Streams**
<https://fastcanada.ca/fast-sectors/>

- **Close-Up on the Bio-Economy: National Report. BioTalent Canada. 2021**

<https://www.biotalent.ca/reports/close-up-on-the-bio-economy-national-report/>

- **BIOTECanada Industry Data**

<https://www.biotech.ca/policy-matters/industry-data/>

2. Occupations in Biotechnology & Life Sciences

The biotechnology and life sciences sector is made up of numerous occupations spread across multiple industries including:

- Healthcare
- Technology
- Manufacturing

The majority of BC companies focus their business on research and development and there are many jobs in these areas.

Jobs in High Demand:

Unfilled Jobs by Employment Level

	Non Supervisory/ Non- Professional	Supervisory/ Professional	Senior Management/ Executive
Preclinical Research	23.1%	38.5%	38.5%
Clinical Research	48.5%	42.4%	9.1%
Research & Development	7.9%	50%	42.1%
Manufacturing	49.0%	49.0%	2.0%
Distribution	7.1%	85.7%	7.1%
Quality Control/Assurance	17.4%	78.3%	4.3%
Marketing/Sales/Communication	31.6%	44.7%	23.7%
Human Resources/Accounting/IT	18.8%	68.8%	12.5%
Business Development	14.3%	35.7%	50%

Source: *Biotalent.ca*

Jobs being filled by Internationally Educated Professionals, 2013

Research and Development	25%
Preclinical Research	11.4%
Senior Management/Executive	8.9%

Source: *Biotalent.ca*

A 2017 survey conducted by BIOTECCanada indicates the biotechnology sector is a highly specialized field and thus, many occupational functions require a university degree. According to the survey, many biotechnology companies have employees with higher education qualification:

- 75% of companies have employees with a bachelor’s degree
- 79% have employees with Master’s degrees
- 88% have employees with a PhD

According to LifeSciences BC, the average annual wage within the industry was \$65,376 in 2014.

Common occupations in the industry include:

- Biologists & Related Scientists (NOC 21110)
- Chemists (NOC 21101)
- Biological Technologists & Technicians (NOC 22110)
- Chemical Technologists & Technicians (NOC 22100)

When looking for work, these occupations may be listed under different titles.

Comparison of NOC Code Titles with Actual Occupation Titles Given

Biologists and Related Scientists (NOC 21110)	Assay Development & Testing Scientist Bioinformatics Programmer/Analyst Environmental Scientist Field Biologist Food Scientist Native Plant Ecologist Support Scientist Toxicology Technician
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Chemist (NOC 21101)	Quality Control & Research Chemist Research Chemist Scientist
Chemical Technologists & Technicians (NOC 22100)	Analyst Assistant Flavour Technologist Chemical Technician Chemistry Preparation Technologist Controlled Substance Officer Lab Analyst QA/QC Technician Research Technologist Technician (Toxicology)
Biological Technologists & Technicians (NOC 22110)	Analyst Immunology Aquaculture Technician Necropsy Technician Research Technician Science and Technology Product Specialist

Sources:

- Sequencing the Data. BioTalent Canada
https://www.biotalent.ca/wp-content/uploads/2013/09/Sequencing_the_data_ENG_Sept19_2013.pdf
- BIOTECanada Industry Data
<https://www.biotech.ca/policy-matters/industry-data/>

For detailed information on many of the occupations in the biotechnology and life sciences sector, including job description, educational requirements for working in BC, salary, and more, see:

- **Bio-Economy Career Profiles**
<https://www.biotalent.ca/careerprofiles/>
- **Bio-Economy Skill Profiles and Skills at a Glance**
<https://www.biotalent.ca/skillsprofilesandskillsataglance/>
- **WorkBC Explore Careers**
<https://www.workbc.ca/plan-career/explore-careers> [search by job title]

3. Hiring Forecast by Region

Approximately 70% of British Columbia's biotechnology and life sciences industry is based in Metro Vancouver

The largest numbers of jobs in this industry are located in Metro Vancouver. Employment opportunities can also be found on Vancouver Island and in the Thompson-Okanagan regions.

For more information about British Columbia's 7 economic regions see:

- **WorkBC Regional Profiles**

<https://www.workbc.ca/research-labour-market/bc-and-regional-profiles>

4. Finding Jobs

Online Job Postings

- **PetriDish - BioTalent Canada Job Board**
<https://www.biotalent.ca/the-petridish/>
- **Indeed.com**
<https://ca.indeed.com/>

Creating a List of Potential Employers

You can use directories to produce lists of employers in the biotechnology and life sciences industry in British Columbia. Contact them directly to find out if they're hiring.

- **LifeSciences BC Membership Directory**
<https://lifesciencesbc.ca/membership/members-directory/>
- **Life Sciences 2023, Business in Vancouver**
Includes Biggest Life Sciences companies in BC
<https://lifesciencesbc.ca/wp-content/uploads/2023/09/BIV-Life-Sciences-2023-Sept-26.pdf>
- **Reference Canada**
<https://www.vpl.ca/digital-library/reference-canada>

Click on "Start Search" beside Canadian Businesses, then select the "Advanced Search" button. Select both "Keyword/SIC/NAICS" under Business Type and "City" under Geography. In the top search box enter "biotechnology" and click SEARCH. Select the appropriate headings. Lower down, select the Province, choose the cities, and click the "View Results" button.

Available from the VPL Digital Library

NOTE: You can access this database from a Library computer. If you are using a computer from outside the Library, you need a Vancouver Public Library card to login to this database. After clicking on the database name, you will be asked to enter your library card number and PIN (usually last four digits of your telephone number).

5. Additional Resources

Still looking for more information? Try looking at the following resources:

- **BIOTECCanada**
<https://www.biotech.ca/>
- **BioTalent Canada**
<https://www.biotalent.ca/>
- **LifeSciencesBC**
<https://lifesciencesbc.ca/>
- **Career Paths for Skilled Immigrants Program**
<https://www.welcomebc.ca/Work-in-B-C/Career-Paths-for-Skilled-Immigrants>
- **Immigrant Employment Council of British Columbia**
<https://iecbc.ca/>

Questions? Please ask the Information Staff at the Central Library or telephone 604-331-3603.

Please note that the information in this guide is also available online through the Skilled Immigrant InfoCentre website at <https://www.vpl.ca/siic>.

