

# 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

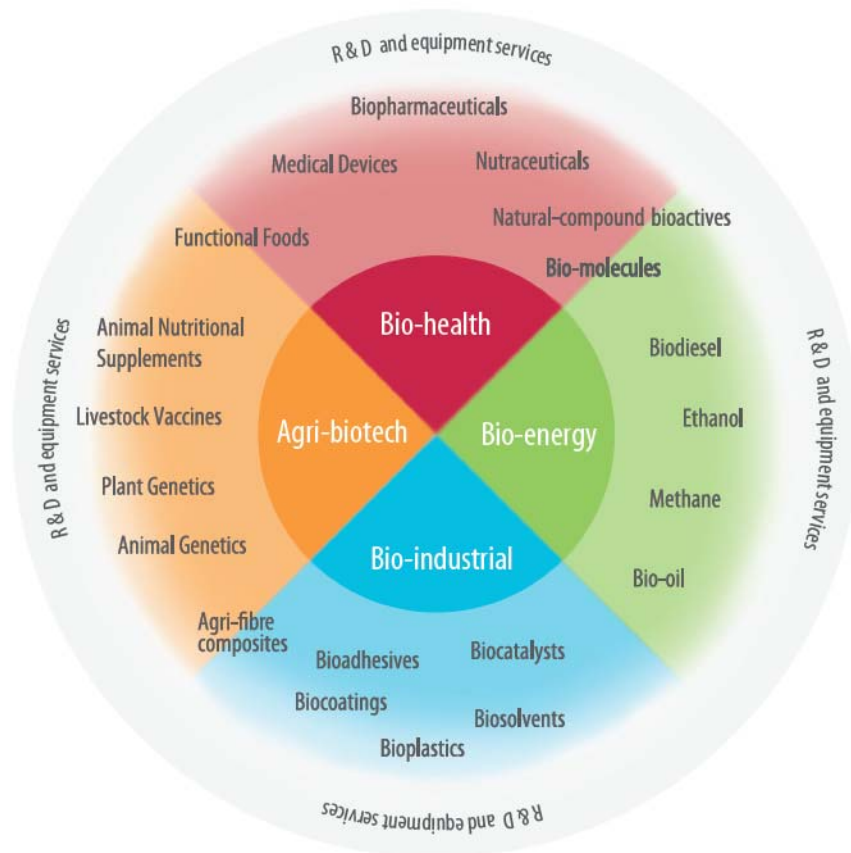


Chart from BioTalent.ca

LifeSciences BC published an overview of British Columbia's life sciences industry in 2012. Some facts about the industry:

- Number of life sciences organizations in British Columbia: 310
- Total estimated expenditures: \$902 million
- Total estimated employment: 14,000 people
- Total estimated wages and salaries paid: \$570 million
- Average annual life sciences industry wage: \$68,000
- Total estimated impact on provincial GDP: \$1.03 billion

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:

- Genome British Columbia
- Amgen Inc.
- Michael Smith Foundation for Health Research
- Centre for Drug Research and Development
- Zymeworks Inc.
- Wavefront
- 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 ***Career Paths for Skilled Immigrants program***. This program helps you understand how to obtain credential recognition, education and association membership in order to establish your career. It also provides assistance in overcoming language and cultural barriers in order to succeed in the Canadian workplace.

- More information: <https://www.welcomebc.ca/Work-or-Study-in-B-C/Work-in-B-C/Employment-Language-Programs>

***BioTalent Canada*** has a ***Foreign Professionals*** webpage that provides links to career tools, training opportunities and information about the local labour market to help you prepare for a career in the biotechnology industry.

- More information: <https://www.biotalent.ca/en/areyouready>

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

- **Economic Importance of the Life Sciences Sector in British Columbia. LifeSciences BC**  
[http://www.lifesciencesbc.ca/wp-content/uploads/2015/06/LSBC\\_Final\\_Report\\_Text.pdf](http://www.lifesciencesbc.ca/wp-content/uploads/2015/06/LSBC_Final_Report_Text.pdf)
- **The Life Sciences Sector in British Columbia. PwC**  
<http://www.lifesciencesbc.ca/wp-content/uploads/2015/06/LifeSciences-BC-Sector-Report-FINAL-1.pdf>
- **Foreign Professionals Labour Market Report 2013. BioTalent Canada**  
<https://www.biotalent.ca/en/newcomers>
- **Paving the Way: Facilitating Career Paths for Newcomers in the Canadian Bio-economy. BioTalent Canada. 2017**  
[https://www.biotalent.ca/sites/biotalent/files/newcomers\\_eng\\_web.pdf](https://www.biotalent.ca/sites/biotalent/files/newcomers_eng_web.pdf)
- **Sequencing the Data. BioTalent Canada**  
[http://www.biotalent.ca/sites/biotalent/files/PDF/Sequencing/Sequencing\\_the\\_data\\_ENG\\_Sept19\\_2013.pdf](http://www.biotalent.ca/sites/biotalent/files/PDF/Sequencing/Sequencing_the_data_ENG_Sept19_2013.pdf)

## 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*

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

Source: *Biotalent.ca*

#### *Jobs being filled by Internationally Educated Professionals, 2013*

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

Source: *Biotalent.ca*

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Common occupations in the industry include:

- Biologists & Related Scientists (NOC 2121)
- Chemists (NOC 2112)
- Biological Technologists & Technicians (NOC 2221)
- Chemical Technologists & Technicians (NOC 2211)

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 2121)	Assay Development & Testing Scientist Bioinformatics Programmer/Analyst Environmental Scientist Field Biologist Food Scientist Native Plant Ecologist Support Scientist Toxicology Technician
Chemist (NOC 2112)	Quality Control & Research Chemist Research Chemist Scientist
Chemical Technologists & Technicians (NOC 2211)	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 2221)	Analyst Immunology Aquaculture Technician Necropsy Technician Research Technician Science and Technology Product Specialist

## Fastest Growing Industries: Biotechnology & Life Sciences

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Sources:

- Sequencing the Data. BioTalent Canada  
[http://www.biotalent.ca/sites/biotalent/files/PDF/Sequencing/Sequencing\\_the\\_data\\_ENG\\_Sept19\\_2013.pdf](http://www.biotalent.ca/sites/biotalent/files/PDF/Sequencing/Sequencing_the_data_ENG_Sept19_2013.pdf)
- Opening the Door: Building Careers for New Grads in Biotech. BioTalent Canada  
<https://www.biotalent.ca/sites/biotalent/files/newgrads.pdf>

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>  
[Free registration required]
- **Careers of the Future: Biotech Industry. FutureWorks**  
<http://web.uvic.ca/~gbrwcky/cfrontiers/careersofthefuture/biotech/two.html>
- **WorkBC Career Profiles**  
<http://www.workbc.ca/> [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/Labour-Market-Information/Regional-Profiles.aspx>



## 4. Finding Jobs

### *Online Job Postings*

- **PetriDish - BioTalent Canada Job Board**  
<https://www.biotalent.ca/en/job-board>
- **Indeed.com**  
<http://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**  
<http://www.lifesciencesbc.ca/members/members-by-sector/>
- **Business in Vancouver. Book of Lists.**  
Biggest Life Sciences companies in BC  
Available at the Central Library 338.9711 B97b and online at  
<http://www.biv.com/lists>
- **Reference Canada**  
<http://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.  
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## 5. Additional Resources

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

- **Biotech Canada**  
<http://www.biotech.ca/>
- **LifeSciencesBC**  
<http://www.lifesciencesbc.ca/>
- **Career Paths for Skilled Immigrants Program**  
<https://www.welcomebc.ca/Work-or-Study-in-B-C/Work-in-B-C/Employment-Language-Programs>
- **Welcome BC Occupational Guides**  
<http://www.welcomebc.ca/Work/find-a-job/occupational-guides.aspx>
- **Immigrant Employment Council of British Columbia**  
<http://www.iecbc.ca/>

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