

# Life Sciences

Thanks to a progressive tech and data ecosystem, Alberta is home to an innovative and growing life sciences hub.

As the only province in Canada to have an electronic health record (EHR) system for all citizens, Alberta is a leader in Real World Evidence generation, offering access to data sets that allows companies to test and scale new products at a lower cost.

The province holds a robust research capacity in life sciences with the University of Alberta and University of Calgary ranked in the global top 150 overall, and top three in Canada for the number of active clinical trials. The University of Calgary and University of Alberta also drive research in multiple fields including oncology, diabetes, and drug development. In 2019, Alberta's pharmaceutical and life sciences sector attracted \$430M in capital investment and generated \$824M in revenue.

## The Numbers



**\$824M**

Revenue generated in 2019



**200%**

Growth in biotech research and development spending since 2014



**15,000**

Jobs supported by the life sciences sector



**200**

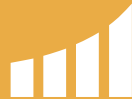
Life sciences companies in Alberta



**\$50M**

In life sciences export annually

## The Opportunity



**3.7%**

Expected CAGR growth rate of R&D investment into Alberta's pharma industry



**\$1.3B**

Digital transformation spending in life sciences expected by 2024



**\$25-100M**

Estimated demand for made-in-Canada pharmaceuticals

## Areas of Focus

### EHR System

Alberta is the only province in Canada to have an EHR system for all citizens. Having this unified data set allows companies to test new innovations and scale products more accurately and at a lower cost.

### AI/ML Ecosystem

The province has a significant AI ecosystem including the AI/ML expertise at the University of Alberta, Amii, and the xR HEAD program from Alberta Innovates. In combination with Alberta's EHR data, the ecosystem offers unrivalled opportunities for Real World Evidence generation and cloud computing capabilities.

## Company Highlight

### 48Hour Discovery

48Hour Discovery has emerged as a world leader in peptide-based drug discovery.



A world-leading AI research institution, Amii frequently collaborates with the healthcare sector and has applied machine learning to diagnose schizophrenia and diseases.

### DRUGBANK

Alberta startup DrugBank has become the world's largest pharmaceutical knowledge database.



## Existing Expertise

Alberta holds expertise in multiple areas including the petrochemicals industry which provides opportunities in advanced continuous manufacturing. The availability of key ingredients such as feedstocks, basic chemicals, and chemical derivatives allow opportunities in next-generation manufacturing, including manufacturing of APIs and medical devices.

Alberta also has a strong foundation in R&D. The University of Alberta and University of Calgary feature global top 150 ranking for life sciences programs, more than 35 research institutes, 30 Canadian Chairs in Medicine, and a Nobel Prize winner.

## Why Alberta?

### Young & Educated Talent



#### Academic Programs

The University of Alberta and University of Calgary are ranked in the global top 150 for life sciences programs.



#### Young Workforce

Alberta has the youngest population of any province with an average age of 39.

### Attractive Lifestyle



#### Dynamic, Affordable Cities

With a high quality of life and low housing prices, Calgary and Edmonton are two of North America's most vibrant, livable and affordable cities. Edmonton is a growing biotech hub with 60 per cent of firms based in the region.

### Low Cost of Doing Business



#### Access to Affordable, Quality Lab & Office Space

Calgary and Edmonton offer some of the most affordable downtown office and lab space in the country.



#### Alberta's Tax Advantage

Alberta offers the lowest overall tax rates in Canada.

### World Class Research & Development



#### Li Ka Shing Institute of Virology

The institute hosts a consortium of researchers aimed at understanding viruses and other pathogens, their respective disease pathogenesis and host immune responses.



#### Drug Development & Innovation Centre

The centre fosters research and education in pharmaceutical sciences with a dedicated team working on translational research and development in biopharmaceuticals, drug delivery, quality control and regulatory sciences.



#### Life Sciences Innovation Hub

A centre for research excellence and innovation the hub is used by students, researchers, startups, and companies to interact, create, and explore new ideas and concepts, as well as provide dedicated wet lab office space for growing companies.

**Big. Bold.**  
Alberta.