







Building Alberta's Innovation

ADVANTAGE

Genome Alberta

2025–2026
Annual Report

As a not-for-profit organization, Genome Alberta is working towards a better future through genomics innovation. We're here to help you assess genomic solutions to meet your needs and connect you to world-leading expertise, potential project partners, cutting-edge technology platforms and leverage investments.

Since our establishment in 2005, Genome Alberta has enabled **$675M of genomics research** and has helped secure **$143.5M of federal research funds** for Alberta-led projects, creating thousands of Alberta jobs and enabling **31 spin-off companies**.

We add significant value to the provincial innovation ecosystem by:

- Working collaboratively with company partners and organizations to find solutions, fund innovation projects and drive new technology adoption.
- Securing significant federal funds for Alberta-led research and increasing innovation support for our provincial priorities.
- Ensuring scientific excellence is supported by social sciences research and addressing ethical, legal and environmental barriers.

Vision

To inspire and catalyze genomics solutions that benefit Albertans and the world.

Mission

To promote and support genomics solutions for end-users' needs to create value and investment opportunities through excellent science, technology and application development, collaborations and partnerships.





$675M
TOTAL GENOME ALBERTA ENABLED PORTFOLIO

$40.5M
INDUSTRY INVESTMENTS INTO GENOME ALBERTA-LED PROJECTS



2,500+
JOBS CREATED





$143.5M
FEDERAL FUNDS FOR ALBERTA-LED PROJECTS



31
COMPANIES CREATED

131
INNOVATIONS ARISING FROM ALBERTA-LED PROJECTS





Building Alberta's Innovation

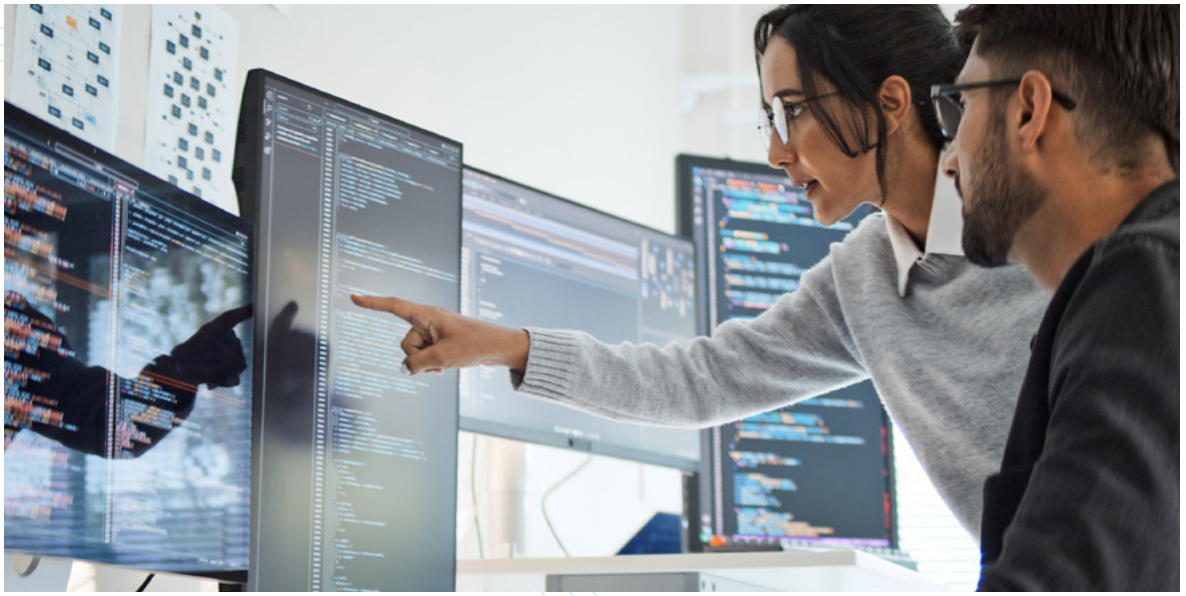
ADVANTAGE

Genome Alberta **2025-26 Annual Report**

This year, we continued to build Alberta's innovation advantage by creating new opportunities for industry collaboration, bringing skilled talent to companies, improving access to data, and moving more innovation toward application in healthcare, agriculture, energy and more.

Highlights include:

- We **delivered the second year of programs** supported by Alberta Technology & Innovation's **$15M** investment using genomics as a technology driver for Alberta's life sciences sector.
  - Advanced **eight genomic tests towards clinical adoption** in Alberta and BC through the Healthy Outcomes through Genomic Innovation initiative.
  - Invested $1.5M in Genomic Innovations Energy and Environmental Solutions, supporting **five new projects** focused on hydrogen storage, effective reclamation and oil recovery efficiency.
- We completed two pilot work-placement programs, **connecting 23 recent graduates with 17 Alberta companies in business, computational biology and bioinformatics roles**. Employers reported up to **12x ROI**, and **87% of participants were retained** in newly created roles.



- As data is fast becoming the new oil to fuel economic growth, Genome Alberta **kicked off the Agriculture Metadata Commons (AMC) initiative** with Genome BC. The AMC makes agriculture genomic data easy to find and use for innovation collaboration and future AI- and machine learning-enabled innovation. Metadatacommons.ca/ag
- We **built new public-private R&D partnerships** to advance promising biotechnologies toward development and adoption. **$20M in federal investment** through Genome Canada and regional Genome Centres supported 33 new projects across Canada, including three Alberta-led projects.



From Discovery to Market: Alberta Life Sciences Companies Creating Real Value

Four company features in our series: **genomealberta.ca/news-and-events**

Luminous BioSolutions

RID INC.

Nova MEDICAL TESTING
Pioneers of Small Molecule Analysis

MetabolomiX
Multiplatform Metabolomics Kits



Building Alberta's innovation advantage is both a long-term commitment and an opportunity to create momentum now. Genome Alberta is investing in the people, partnerships, data and technologies that can deliver value today while strengthening the foundation for Alberta's future.

Geoff Pradella, Board Chair

Alberta has the research expertise, talent and industry strengths to apply excellence in genomics innovation to the practical solutions our province needs. Our role is to connect those strengths—helping move technologies toward adoption, build high-quality data resources for future AI-enabled innovation, and create opportunities for Alberta companies and researchers to grow.

David Bailey, President & CEO





Genome Alberta

IMPACT

Our portfolio generates so much more than research results. Across Alberta's key sectors, our investments build talent, support new tech companies and generate high-quality genomics data sets to fuel future innovation.

We are building a stronger foundation of integrated biological data, we are creating opportunities to apply AI and machine learning to develop practical solutions, and we are creating value across Alberta's health, agriculture and agri-food, environment and energy, forestry, and data sectors to support economic growth.

Genomics Data as a Strategic

ASSET

High-quality genomics data powers discovery and enables AI-driven insights that can support practical data-driven solutions across industries.

Genomics is a big data science. From human health and agriculture to forests and natural resources, Genome Alberta-supported research generates high-quality biological data that can help address challenges across key sectors of Alberta's economy.

Generating data is only the beginning.

Value comes when data can be found, accessed, integrated and analyzed. Across our portfolio, we support the development of datasets, databases, software and tools – which are already becoming new applications in precision health, livestock and crop breeding, food safety, and environmental stewardship.

Learn more about our data resources at **genomealberta.ca/sectors/data-resources**



Data Today. Advantage Tomorrow.

By investing in high-quality genomics data resources, Genome Alberta builds the foundation for AI-enabled innovation and economic growth.

Build through partnerships

Open, FAIR, and responsibly managed

Genomics at work in Alberta's

KEY SECTORS

Investing in technology development, generation of high-quality data and bio-based solutions, Genome Alberta is helping build Alberta's innovation advantage and supporting commercialization, industry competitiveness and new opportunities for economic growth.



In 2025-26 Genome Alberta was...

Lead on **33 projects**

Co-lead on **3 projects**

Participant on **1 project**

37 TOTAL PROJECTS **$138M**



Environment and Energy

Driving innovations for biodiversity conservation, reducing emissions, mitigating environmental risks, and advancing sustainable reclamation practices.

10 Projects **$19M**



Agriculture and Agri-Food Projects

Strengthening resilience and sustainability of our food systems, enhancing productivity, improving animal health, and advancing the safety and quality of food products.

5 Projects **$31M**



Forestry

Data-driven forestry solutions are improving tree breeding and sustainable forest management.

1 Project **$6M**



Health

Precision health tailors care to a patient's unique needs using genetic information and other helpful data, improving health care delivery through better tools for prevention, diagnosis, and treatment.

19 Projects **$79M**



Data Resources

Building critical data assets by digitizing biology with genomics and AI to positively transform key economic sectors.

2 Projects **$2.8M**



Genomics at work in the

HEALTH SECTOR

Improving Patient Outcomes and Health Care Delivery

ACCELERATE

the adoption of new genomics technologies to improve patient care.



Healthy Outcomes through Genomic Innovations

The future of medicine is personal, and we are getting closer everyday! Through the projects supported through a multiprovincial initiative to expand genomics-based testing into routine care, called the **Healthy Outcomes through Genomic Innovations** initiative, **13** genomics tests and tools have advanced their development, **10** new education/training resources have been developed for clinicians and patients and **4** health economic evaluations are being completed to provide evidence to the health system of their utility, feasibility and affordability.

The initiative is achieving success through strong collaboration between health system partners and the research teams.

New genomic services and tests **available to patients**:

- More precise cancer testing by improving testing for gene fusions.

Genomic services and tests **getting ready for clinical implementation**:

- Rapid diagnostic tests guide faster bloodstream infection treatment.
- Expanding genetic tests to personalize safer childhood cancer treatment.
- Bringing cardiac genetic testing into routine clinical care.
- Genetic blood tests to improve kidney transplant monitoring.

Genomic services and tests **evaluating evidence, demonstrating utility, or preparing for integration in health system workflows**:

- Stopping the spread of antibiotic-resistant infections earlier.
- Standardizing genetic test results to enable personalized medication prescribing.
- Developing easier access to blood tests for earlier lung cancer detection.



Faster Diagnosis | Personalized Treatments | Improved Disease Prevention | Cost-Effective Care

Read more about our Health Sector funded initiatives: **genomealberta.ca/project-portfolio/**


Genomics at work in the
AGRICULTURE
SECTOR
Improving Productivity and Competitiveness of Agriculture Producers

ACCELERATE

innovation in agriculture through new data sharing infrastructure.

Agriculture Metadata Commons

The **Agriculture Metadata Commons**, a digital database designed to organize and disseminate information about agriculture genomics research data is now available to data seekers!

Data seekers, including researchers, research funders, companies and other organizations, will be able to search detailed information about datasets, including those generated from Genome Alberta's funded portfolio of research into Agriculture and Agri-food.

Information includes high level project descriptions, study design details, and precise identification of samples used to generate data across the livestock, crop, and soil sub-sectors providing a quick and easy reference for relevant genomic data to kick-start additional innovation opportunities and connect potential collaborators.

Genomics Data Connect: One Health Antimicrobial Resistance Initiative

The **World Health Organization (WHO)** identifies antimicrobial resistance (AMR) as one of the greatest global health threats. As germs are increasingly resistant to the medicines used to treat and cure infections, governments worldwide are working together to address this challenge.

Alberta's One Health Antimicrobial Resistance Framework for Action calls for collaboration to protect human, animal, and environmental health. Genomics can provide cost-effective tools to address a key priority to track antimicrobial use and resistance over time and place.

Genome Alberta, in collaboration with Alberta Innovates, brought together leading experts at the U of A, U of C and at Agriculture and Agrifood Canada with a broad group of provincial stakeholders to discuss and kick off **a new initiative** to improve the coordination, accessibility, and interoperability of AMR data to support planning, responses, and action.



Benefits of AMR Data Coordination:

- Reduce duplication in data collection
- Leverage historical datasets
- Integrated One Health Approach
- Long-term data stewardship and accessibility

Read more about our Agriculture and Agri-food Sector funded initiatives: **genomealberta.ca/project-portfolio/**



Genomics at work in the

ENVIRONMENT SECTOR

Enhancing Environmental Stewardship and Natural Resource Management

ACCELERATE

the adoption of new biotech in Alberta's energy sector to improve environmental outcomes.



Five new projects, with a total value of $2.9 million, were kicked off to strengthen environmental performance in energy.

Soil Health Measures for Healthy Forests

This project will develop a soil health index and identify bioindicators to r eflect the recovery of disturbed land.

Industry benefits from this work:

- Improved restoration of boreal forests
- More accurate reclamation assessments
- A cost-effective tool to measure reclamation progress & success
- Improved sustainability of reclaimed soil health

Dynamics of Hydrogen Storage in Underground Salt Caverns

Genomics, predictive modeling, and chemical controls can give operators practical ways to keep underground hydrogen storage safe and reliable.

Industry benefits from this work:

- Reducing risk of hydrogen storage contamination
- Enabling safer, large-scale storage of clear hydrogen
- Reducing costs and safety risks for cavern operators
- Supporting growth of Alberta's clean hydrogen industry

Microbes for Oil Recovery with Lower Emissions

New microbial technology for lowering the emissions intensity associated with steam-assisted gravity drainage (SAGD).

Industry benefits from this work:

- Reduced greenhouse gas emissions
- Improved efficiency of oil extraction processes
- Reduced carbon footprint per barrel of oil production
- Improved sustainability of Alberta's oil sands sector

Protecting Hydrogen Infrastructure

Developing screening tools to detect hydrogen-eating, corrosion-inducing microbes in pipelines and underground storage sites.

Industry benefits from this work:

- Reduced risk of H2 loss in subsurface storage
- Safer, large-scale hydrogen storage solutions
- Improved strategies to manage corrosion in energy infrastructure
- De-risk hydrogen markets & exisiting oil & gas operations

Evaluating Pit Lakes for Oil Sands Reclamation

Developing DNA-based indicators for evaluating ecological health and reclamation progress in oil sands pit lakes.

Industry benefits from this work:

- Develop new tools to monitor pit lake health
- Support oil sands reclamation monitoring
- Identify biological indicators of successful ecosystem recovery
- Inform future pit lake design, management and closure planning

Read more about our Environment and Energy Sector funded initiatives: **genomealberta.ca/project-portfolio/**

OUR TEAM

Board of Directors

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Donald Nkrumah
Donna Hildebrant
Fred Wrona
Gordon Giles
Jay Cross
Michael Lohuis
Ouray Crowfoot
Phyllis Clark

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President & CEO

Gijs van Rooijen
Chief Scientific Officer

Matt Bryman
Chief Operating Officer

Erin Tessier
Director Communications and Partnerships

Jeremy Wilde
Controller

Mitthua Sarkar-Banks
Director People and Culture





FINANCIALS

Read the Genome Alberta Financial Statements for the Year Ended March 31, 2026 and Independent Auditor's Report thereon **here**.