



2023-24 ANNUAL REPORT

**HARNESSING GENOMICS  
FOR IMPACT**



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**Genome Canada’s main office is located on the unceded traditional land of the Algonquin Anishinaabe Nation.**

As a national organization, we support activities taking place on the traditional territories of many First Nations, Inuit and Métis peoples across the country.

We recognize past and ongoing injustices perpetrated against Indigenous peoples as part of the colonial project in Canada, including violence, oppression, land theft and harmful attempts to erase culture. Given Canada’s colonial foundation and how it shapes the discourse and practice of science—especially genomics and related health and biomedical research—Genome Canada commits to fostering Indigenous truth, reconciliation and engagement in our programs to address the gaps in the participation of underrepresented, equity-deserving and Indigenous groups in Canada’s genomics research agenda, data sets and governance.

Genome Canada commits to working in co-creative partnership with Indigenous researchers, leaders and communities to develop and support a stand-alone and distinctions-based strategy to bolster Indigenous genomics leadership in Canada.

## JOINT MESSAGE FROM THE PRESIDENT AND THE BOARD CHAIR

*Dear Friends,*

**For nearly 25 years, Genome Canada has been building the Canadian genomics ecosystem**, investing more than \$1.6 billion in 600+ projects led by a community of researchers, technology centres, and cutting-edge companies working to apply genomics to our most pressing problems. Our work has launched 131 startup companies, produced 531 patents and advanced the careers of nearly 7,700 trainees. With this strong track record, we remain as committed as ever to supporting ideas, people and technology to drive made-in-Canada solutions to pressing global challenges—a commitment that is as important today as it's ever been.

And yet, we live in turbulent and challenging times—marked by economic, political, social and climate uncertainty. AtGenome Canada, we've asked ourselves: How can we deploy the increasingly powerful tools available through genomics and associated technologies to address these challenges? How do we ensure that Canada can navigate issues related to climate change, food insecurity, loss of biodiversity, and longstanding health and public health issues? How do we support the continued evolution of this ecosystem we helped build that can make the next 25 years as successful as our first 25?

We believe we have the answer. Canada has a strong, innovative and committed genomics community ready to rise to the challenge. We atGenome Canada understand our role is to fuel that community, convene our best and brightest minds, support the development of technology and infrastructure to support them and coordinate our efforts so that the whole is greater than the sum of the parts. We understand that leadership is more than just showing the way—it's providing the space and support for everyone to do their best work, to bring their best efforts to the common cause.

And genomics really can deliver powerful tools as we face these challenges. Developing the large-scale data assets made possible by advances in sequencing, then matching them with increasingly rapid advances in artificial intelligence (AI) and engineering biology is delivering immense impacts across sectors from health to food and agriculture and from natural resources to biomanufacturing. We are in the early days of a major bio-revolution, but we can already see the potential we are unlocking.

We are grateful for the Government of Canada's ongoing funding of genomics and of our leadership in convening and building partnerships across the life sciences ecosystem. As proud recipients of Strategic Science Fund (SSF) financing, we are excited about bringing the community together to solve big challenges. Last year, we made a major investment in our Climate-smart Agriculture and Food Systems initiative, supporting nine projects working to reduce contributions to climate change in our food and agriculture sector. These projects apply genomics research and innovation to create sustainable solutions for Canadian producers and resilient national food systems and supply chains. This summer, we will add two connector projects to manage data and mobilize knowledge across the portfolio, furthering our efforts to address food insecurity. This investment is informed by our learnings from our work on COVID-19 on the importance of resiliency and preparedness to ensure Canadians' health and food security when national security is at stake.

This is just one of our initiatives. We are excited about the upcoming launch of a major pan-Canadian precision health initiative in the fall of 2024. This initiative will focus on a community-wide effort to develop large-scale data assets and genomics technologies for precision health, an initiative that will have significant impacts on both precision health delivery and commercial innovation in the health sector. Stay tuned! And we continue to invest in over 200 ongoing projects, driving uptake of genomics, building regional linkages, and enhancing provincial/federal alignment.

Despite the challenges we face, we believe these are exciting times. We are inspired by the commitment of the life sciences community and we have been working with our key partners, including the six regionalGenome Centres, to develop a five-year Strategic Action Plan that will lay out our priorities and plans to support Canadian research and innovation in genomics and describe how—by convening, coordinating and illuminating—we can fuel the tremendous diversity of talent, ideas, knowledge, and passion of ecosystem members to drive long-term solutions to major challenges. **Together, we will do great things.**



**Rob Annan, PhD**  
President and CEO



**Elizabeth Douville, PhD, ICD.D**  
Board chair





## 2023-24: A YEAR OF IMPACT

*At Genome Canada, we leverage and enhance Canada’s excellence in cutting-edge genomics research and technologies. This report shows how our investments and leadership are helping drive long-term economic growth, low-carbon productivity, sustainable environmental solutions and a healthier future for Canadians.*

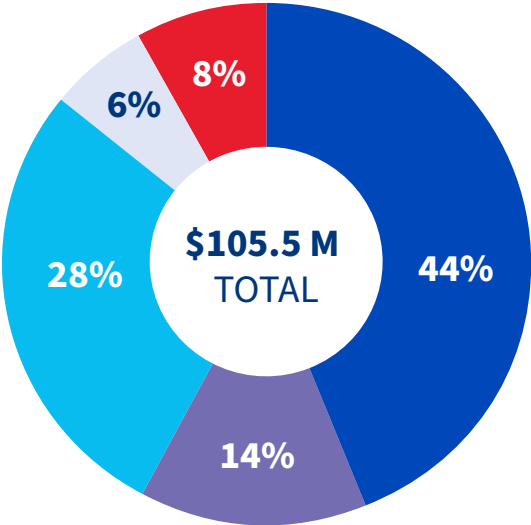
### OUR MODEL FOR SUCCESS

We convene Canada’s genomics ecosystem to increase its collective impact, collaborating with a pan-Canadian network of six independent Genome Centres that form the Canadian Genomics Enterprise. We work in partnership across sectors and borders to drive investment and coordinate, connect and diversify genomics research, innovation, data and talent initiatives to meet today’s biggest challenges.

Our federated model delivers research and innovation partnerships by leveraging federal investment through Genome Canada, and regional investment from provincial governments, industry, universities and non-profits through the Genome Centres. We work closely with the Canadian government and other federal science, technology and innovation ecosystem partners to address national priorities that align with regional needs, realities and strengths through the Genome Centres.

We fund merit-based research with a focus on the potential for vpositive impact across projects and portfolios. We typically employ a peer review process, choosing individuals for their expertise in science, technology and/or translation, or in management of large-scale genomics projects. Applications undergo a rigorous review of their technical aspects and expected impacts as well as program-specific criteria. Review committees are composed of Canadian and international experts, end users and policymakers. Our investments are supported by Board and governance bodies to ensure we are maximizing impact and remain strategically focused.

In 2023-24, a total of \$105.5 million was invested in genomics research, including \$46.5 million from Genome Canada and \$59.0 million from co-funders. Co-funding investments include \$14.5 million from other federal sources, \$29.8 million from provinces, \$5.9 million from industry and \$8.8 million from Canadian non-for-profit organizations, foundations, and foreign governments and not-for-profit organizations.



**2023-24 RESEARCH FUNDING SUPPORTED BY THE CANADIAN GENOMICS ENTERPRISE**


- Genome Canada
- Other Federal
- Provincial
- Industry
- Universities, Canadian not-for-profit organizations, foundations, and foreign governments and not-for-profit organizations

# ADVANCING THE CLIMATE-SMART AGRICULTURE AND FOOD SYSTEMS INITIATIVE

## Supporting sustainable food practices and agricultural growth

*This year, Genome Canada announced the Climate-Smart Agriculture and Food Systems portfolio: nine Interdisciplinary Challenge Teams made up of researchers, industry partners, end users and community leaders from across disciplines. Their projects will translate genomics research and innovation into sustainable solutions to support Canadian producers and a resilient national food system. Next year, we will announce investment in a Data Hub and a Knowledge Mobilization Hub to connect efforts across projects and maximize the portfolio's national impact.*

### BY THE NUMBERS

**1** Ministerial announcement by the Honourable Greg Fergus — [watch it here](#) 

**9** Interdisciplinary Challenge Teams announced. **To date:**

- \$70M total investment in Canadian agriculture
- \$27M in federal investment through Genome Canada
- \$42M in co-funding from partners
- 100% in partnership with key stakeholders, including government, industry and Indigenous communities

**2** connector Hubs coming in summer 2024

**6** provinces involved

**100%** of projects have an IDEA-focused stream of work

**Countless** impacts to come as work advances

### PROJECTS

- 1.** [↻ Prioritizing social justice in use of new agri-genomic technologies](#) by improving understanding of their social impacts to ensure that no one gets left behind—enabling an equitable and just transition to new technologies for all.  
Led by Stefania Pizzirani (University of the Fraser Valley), Robert Newell (Royal Roads University) | Funded through Genome British Columbia.
- 2.** [↻ Enhancing soil carbon sequestration and reducing greenhouse gas emissions generated by the agricultural sector](#) through combined genomic technologies and grassland/rangeland management.  
Led by James Cahill (University of Alberta), Carolyn Fitzsimmons (Agriculture and Agri-Food Canada/ University of Alberta) | Funded through Genome Alberta.
- 3.** [↻ Developing higher quality climate-resilient field pea crops—a high-protein, low-nitrogen and higher-value alternative to wheat and canola](#)—to help meet global food demand and contribute to Canadian exports and economic development while reducing the carbon footprint of our agricultural sector.  
Led by Marcus A. Samuel (University of Calgary), Sateesh Kagale (National Research Council Canada) | Funded through Genome Alberta and Genome Prairie.
- 4.** [↻ Supporting increased native species and genetic diversity in Canada's grasslands](#) by harnessing grasslands' capacity to sequester large amounts of carbon and stably store it in the soil, thereby enhancing carbon storage.  
Led by Jonathan Bennett (University of Saskatchewan), Sean Asselin (Agriculture and Agri-Food Canada/ Swift Current Research and Development Centre) | Funded through Genome Prairie.



May 2023 announcement of nine [Interdisciplinary Challenge Teams in the Climate-Smart Agriculture and Food Systems](#) portfolio in Montreal. [↗](#)

5. [↗ Reducing synthetic fertilizer use and resulting N2O GHG emissions](#) through innovative genomic breeding strategies and development of new climate-resilient and efficient wheat and lentil crop varieties, saving Canadian agricultural producers more than \$1 billion in fertilizer costs over the next two decades.

Led by Kirstin Bett, Curtis Pozniak (University of Saskatchewan) | Funded through Genome Prairie.

6. [↗ Supporting a more resilient domestic food system](#) by harnessing microbial inoculants—produced by microbes found in Canadian soils—as an alternative to industrially produced and chemical fertilizers for agriculture, with the potential to significantly reduce Canadian GHG emissions from wheat, barley canola and dry bean production.

Led by Ivan Oresnik (University of Manitoba), George diCenzo (Queen's University) | Funded through Genome Prairie and Ontario Genomics.

7. [↗ Reducing the carbon footprint of local agri-food waste](#) by leveraging genomics to mitigate GHGs by using composting, mushrooms and edible insects' bioreactors to transform urban agri-food wastes into food or fertilizers.

Led by Joan Laur (Université de Montréal), Louise Hénault-Ethier (INRS) | Funded through Génome Québec.

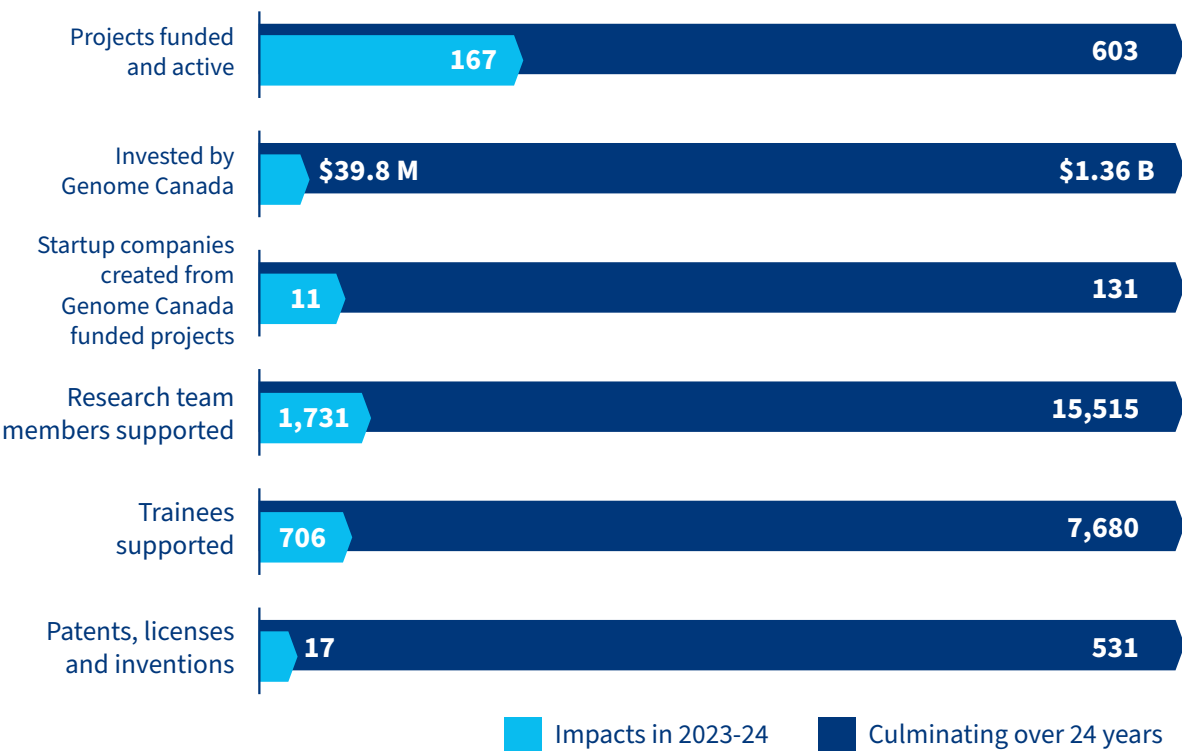
8. [↗ Harnessing genomics to achieve a net-zero future for Canada's dairy industry](#)—and the Dairy Net-Zero Pledge by 2050—by delivering a science-driven mitigation roadmap for GHG management in dairy production.

Led by Christine Baes, Filippo Miglior (University of Guelph), Rachel Gervais (Université Laval), Paul Stothard (University of Alberta) | Funded through Ontario Genomics, Génome Québec, Genome Alberta.

9. [↗ Developing scalable production of cultivated meat](#) by using omics-guided technologies to meet demand for dietary protein with less strain on land and water resources and fewer GHGs.

Led by P. Ravi Selvaganapathy (McMaster University), Julie Audet (University of Toronto), Michael von Massow (University of Guelph), Michelle Bamji-Mirza (Collège La Cité) | Funded through Ontario Genomics.







# GENOME CANADA BY THE NUMBERS

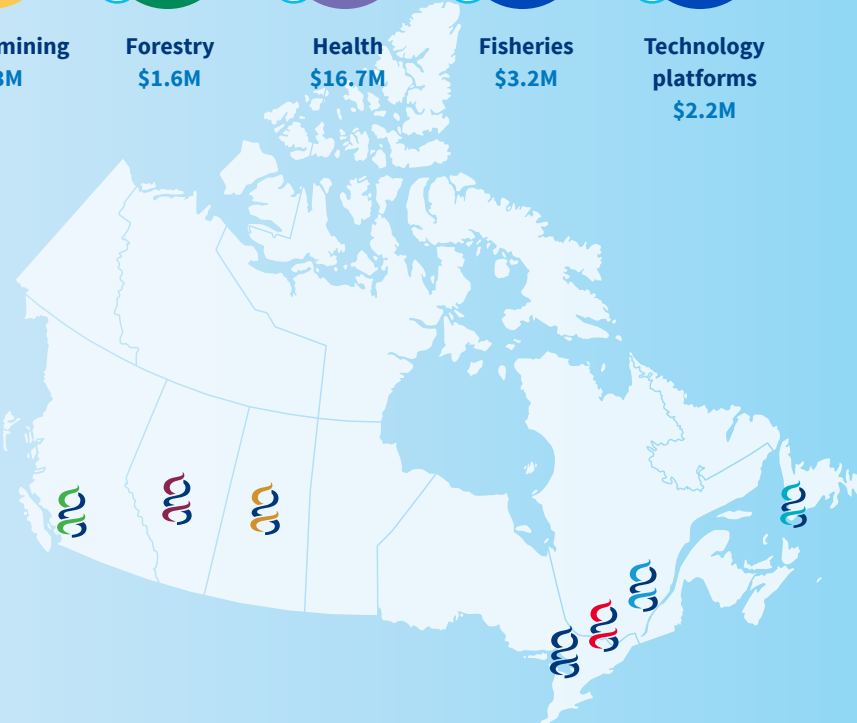


## FUNDING ACROSS SECTORS



## NUMBER OF PROJECTS FOR 2023-24 BY REGION

-  Genome Atlantic: 8
-  Génome Québec: 39
-  Ontario Genomics: 69
-  Genome Prairie: 11
-  Genome Alberta: 13
-  Genome British Columbia: 27
- Total: 167**





# HOW WE ACHIEVED OUR OBJECTIVES

*We envision Canada as a world leader in the application of genomics-based biosciences for human health and agriculture, and across the environment.*

To achieve this vision, we connect people and ideas across the public and private sectors through strategic programming that harnesses the power of genomics research, innovation and talent for the benefit of all Canadians. We align our investments with strategic goals and priorities across the life sciences ecosystem. We assess emerging trends, technological advancements and societal needs to identify areas where research can have the most significant impact. This involves careful consideration of market demand, scientific feasibility and potential for innovation. We actively engage with industry partners, government agencies and academic institutions to leverage resources and expertise, maximizing the effectiveness of our investments. And we are committed to the principle of inclusive genomics, striving to ensure that our projects reflect Canada's diverse populations and that the benefits are equitably shared.

This section outlines our stated objectives for the last year and how we worked to meet them.

1

Drive high-impact research to benefit Canada.

2

Deliver effective, purpose-fit programs that support our mission.

3

Promote the responsible and equitable application of genomics in Canada.

## 1. DRIVING HIGH-IMPACT RESEARCH TO BENEFIT CANADA

*We supported research projects and initiatives with significant potential to generate innovative solutions to pressing global problems. We also funded large-scale, interdisciplinary research with line-of-sight to application. We invested in strategic research that addresses societal challenges, while providing access to leading-edge technologies and supporting research on genomics in society.*

**Advancement of the Climate-Smart Agriculture and Food Systems initiative.** Launched in May 2022, this initiative is now helping to build the resiliency, environmental sustainability and economic viability of Canada's food production systems.

- **Interdisciplinary Challenge Teams (ICTs).** In September 2023, [nine successful ICTs](#) were announced by the Honourable Greg Fergus, then Parliamentary Secretary to the Prime Minister and to the President of the Treasury Board in Montreal. This represents an investment of nearly \$70 million, with \$27 million from Genome Canada and \$42 million from co-funding partners. The announcement took place at la Centrale Agricole, the largest urban agriculture cooperative in Quebec, featuring TriCycle, a local start-up using genomics to reduce urban food waste. These projects are bringing together researchers, companies, producers, government partners and diverse communities to support Canada's move towards sustainable agriculture and net-zero carbon food systems. We invested \$2.2 million in 2023-24.
- **Data and Knowledge Mobilization Hubs.** We launched the Hub funding opportunities in August 2022 and ISED will publicly announce the two successful Hubs in summer 2024. One will be Canada's first national agricultural and agri-food genomics data

hub for climate action. The other will help get genomic solutions into the hands of those who use them, mobilizing knowledge generated by the ICTs and delivering it to communities, producers, companies, consumers, governments and others.

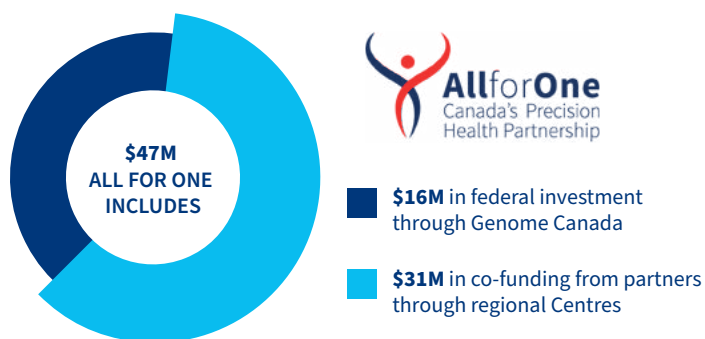
**Advancement of All for One, Canada's precision health partnership.** We continued to advance the goals of this [pan-Canadian initiative](#) in rare disease by supporting six clinical implementation projects in nine provinces, the [Policy Toolkit](#) and the development phase of the [Health Data Ecosystem](#) (HDE). We also broadened access to genome-wide sequencing and led patient-community engagement. Cumulatively, we are investing \$16<sup>1</sup> million in the initiative, with co-funding of \$31 million, for a total of \$47 million. The funded projects are collectively building regional capacity, promoting the equitable and ethical uptake of precision health tools, and breaking down barriers to data sharing across jurisdictions to generate benefits for patients and families. We invested \$3.81 million in 2023-24.

### Most notably:

- Each project has strong relationships with key regional stakeholders, is led by a clinical team, is driven by the provincial ministry or regional health authority, and is carried out in partnership with clinicians and diagnostic labs.

<sup>1</sup> These amounts are included in investments of other programs later in this document but are also presented here given the focus of our investments in this research area.

- Many of the projects have demonstrated clinical utility and cost-effectiveness of genome-wide sequencing as standard of care leading to successful repatriation and integration of sequencing regionally. For example, they resulted in increased diagnostic yield, decreased turnaround time and cost savings of \$40,000+ per patient.
- The Policy Toolkit has established a data governance framework for informed clinical consent and genomic data sharing across other projects within the initiative.
- The HDE, a model for health data sharing in Canada, allows All for One clinical implementation sites to share data with each other for clinical and research purposes related to rare diseases, speeding up diagnoses and treatments. As part of the HDE work, in February 2024, the All for One teams at CHEO and The Hospital for Sick Children launched the [Clinical Genomics Network](#) to share genome-wide sequencing data; they contributed data from over 4,000 rare disease patients and family members. As more individuals are sequenced and more diagnostic laboratories join the Network, its impact will be amplified across Canada.



**“Individually, no single institution or health region can sequence enough people’s DNA to build a comprehensive database to support high-quality interpretation of clinical genome-wide sequencing. This is particularly true for equity-deserving populations who are also underrepresented in current genomic reference datasets. The All for One Precision Health Partnership is changing that and providing a blueprint for other countries around the world.”**

*Dr. Kym Boycott, All for One data sharing lead and Clinical Geneticist at CHEO, and Senior Scientist at the CHEO Research Institute.*

[🔗 Learn More](#)

**Funding of demand-driven genomics collaborations in agri-food, the environment and health through the [Genomics Applications Partnership Program \(GAPP\)](#).** Cumulatively, at the end of 2023-24, Genome Canada and our co-funding partners had funded 116 receptor-led projects. This represents an expected total investment of approximately \$485 million, including \$147 million from Genome Canada and \$337 million in co-funding, in 25 rounds of investment. Examples of projects initiated last year include using genomics to deliver life-saving precision health, new cancer treatment and diagnosis options, and innovations in pathogen surveillance for faster public health responses to respiratory viruses. Other projects include improving and increasing livestock and eco-friendly crop production and expanding high-protein shellfish production to address food insecurity in Canada. We invested \$17.6 million in 2023-24.

**Support for next-generation researchers.** This partnership with Mitacs provides placements and funding for graduate students and postdoctoral fellows to work on GAPP projects within industry partners’ operations. It prepares Canada’s next generation of innovators to apply their knowledge and skills in a real-world setting and help advance the field of genomics. Companies benefit from the high-quality research expertise. During 2023-24, this partnership supported 12 [Mitacs Accelerate](#) internships through GAPP projects, advancing careers and building Canada’s genomics talent pool.

## RESEARCH IN ACTION:

### SUPPORTING FOOD SUSTAINABILITY AND AFFORDABILITY

The cost of food worldwide continues to rise. According to the Canada Food Price Report, groceries for a family of four will go up by between 2.5% and 3.5% in 2024, with the cost of some food items rising by nearly 7%. These price hikes outpace inflation and are exacerbated by increasing interest rates, energy costs, climate change and geopolitical issues such as the wars in Ukraine and the Middle East. Genomics has a role to play in transforming agriculture and aquaculture and shaping the future of food: by improving crop yields and animal productivity, it can help achieve food security, better supply chain management and lower food costs for Canadians.

### PROJECT SPOTLIGHT

An example of such work is the [mussel genomics program](#) in Atlantic Canada where mussels aquaculture contributes \$60 million a year to the economy and supplies 50% of mussels consumed in North America. Teams led by Dr. Ramón Filgueira, Associate Professor of the Marine Affairs Program at Dalhousie University, and Dr. Tiago Hori, Director of Innovation and principal co-investigator at Atlantic Aqua Farms, are developing [Canada’s first-ever genomics selective breeding program](#) for triploid mussels. Their work



L to R: Dr. Ramón Filgueira, Dalhousie University, and Dr. Tiago Hori, Atlantic Aqua Farms.

will increase the per-acre grow rate and allow for augmented production while also limiting the carbon footprint increase. Expanding shellfish production to replace other protein sources, along with establishing genomic-driven biotechnology approaches, will increase provincial revenues, bolster Canadian leadership in aquaculture innovation, create more skilled jobs in Atlantic Canada, and help meet Canada's net-zero target by 2050—all while enhancing food security.

#### A PARTNERSHIP APPROACH

The Triploid Mussel Program is a GAPP project co-funded by Genome Canada in partnership with Genome Atlantic, Génome Québec, Atlantic Aqua Farms, Dalhousie University, Research Nova Scotia, Mitacs, University of New Brunswick, University of Prince Edward Island, Université de Québec à Rimouski, and the Government of Prince Edward Island.

#### Funding of three existing Large-Scale Applied Research Project (LSARP) Competitions, each with a specific sector focus:

- [2020 LSARP Competition – Genomic Solutions for Natural Resources and the Environment](#). A total of \$59.7 million has been invested since January 2020, including \$24.4 million from Genome Canada and \$35.2 million in co-funding. This work is in partnership with Natural Resources Canada and aims to make Canada's natural resources and environment more resilient to climate change. It supports eight projects addressing issues such as boosting the resilience of Canada's extensive pine forests to mountain pine beetle devastation, and accelerating the remediation of northern wetlands from ecologically harmful industrial by-products. We invested \$5.9 million in 2023-24.
- [2018 LSARP Competition – Genomic Solutions for Agriculture, Agri-Food, Fisheries and Aquaculture](#). We launched this competition in January 2018 in partnership with Agriculture and Agri-Food Canada (AAFC). A total of \$78.4 million has been invested, including \$30.7 million from Genome Canada

and \$47.7 million in co-funding. It supports eight projects that are advancing the sustainability, productive capacity and competitive position of Canada's agriculture/agri-food and fisheries/aquaculture sectors. The projects take a One Health approach to reducing agricultural reliance on antibiotics and building the genomic capacity of wheat breeding to address future food security issues globally. We invested \$5.5 million in 2023-24.

- [2017 LSARP Competition – Genomics and Precision Health](#).

We launched this competition in January 2017 in partnership with the Canadian Institutes of Health Research (CIHR). A total of \$160.4 million has been invested, including \$44.8 million from Genome Canada and \$115.6 million in co-funding. It supports 15 projects that are contributing to a more evidence-based approach to health. The projects, designed to improve health outcomes and/or enhance the cost-effectiveness of the healthcare system, focus on reducing healthcare disparities and improving diagnostic success for Indigenous children with genetic diseases, addressing adverse reactions of children with cancer to drug therapies and increasing understanding of the role of the microbiome in conditions from irritable bowel disease to asthma. We invested \$5.3 million in 2023-24.

#### Long-term funding of foundational work

- [Technology Platforms](#). Through various competitions over the last 20 years, Genome Canada has supported technology platforms that have catalyzed world-leading Canadian research. Several have grown into much larger entities, requiring a blend of funding from institutional, philanthropic, provincial and federal sources, in addition to that from Genome Canada. We have worked with ISED and other funders such as the Canadian Foundation for Innovation (CFI) and the Digital Research Alliance of Canada to develop principles for a more strategic approach to national genomic capabilities, including the development of emerging technologies necessary for our future initiatives. We invested \$0.5 million in four platforms ([Pan-Canadian Proteomic Centre](#), [Centre for Phenogenomics](#), [McGill Applied Genomics Innovation Core](#) and [Canadian Centre for Computational Genomics](#)) in 2023-24.
- [Bioinformatics and Computational Biology](#). Similarly, previous focused investments in bioinformatics and computational biology have provided long-term support for the development of next-generation tools and methodologies under two streams: human health and food/agriculture and natural resources/environment. These investments have been vital to creating new and innovative ways of engaging with large-scale complex genomics data sets. The ongoing projects are delivering impact by using machine learning to predict drug resistance in pathogenic bacteria, developing toolkits for rapid characterization of bacterial genomes and tackling the environmental and agri-food context of antimicrobial resistance. We invested \$350,000 in 2023-24.



Dr. Nada Jabado and members of her team.

## RESEARCH IN ACTION:

### ADVANCING STANDARDS OF CARE AND PRECISION HEALTH

The healthcare industry is transforming as diagnostic technologies evolve, data availability skyrockets, and patient needs and expectations change. We now have diagnostic and sequencing technologies that will enable precision health diagnoses and treatments we could only imagine in the past, customized to an individual's genes, environment and lifestyle. Genomics has a role to play in creating shared tools and data assets that strengthen public health and catalyze the shift from a disease-oriented healthcare system to one that is more precise, personalized, predictive, preventative and cost effective.

## PROJECT SPOTLIGHT

An example of such work is a project tackling childhood brain cancer, the leading cause of cancer-related death in people under 20 and the third leading cause for those 20-39 years old. Researchers are fast-tracking treatments targeting genetic alterations at early diagnosis of this cancer, which has survival rates as low as 10% for some forms and possible severe disabilities for those who receive therapies and survive. Teams led by Dr. Nada Jabado, Professor of Pediatrics and Human Genetics at McGill University, Dr. Jacek Majewski, Associate Professor of Human Genetics at McGill, and Dr. Michael Taylor, Adjunct Scientist at SickKids, are modelling the disease, accelerating clinical trials and working with healthcare providers to deliver validated treatments to the bedside. Their research is improving survival rates and quality of life for children and young adults with brain cancer both during and after treatment.

## A PARTNERSHIP APPROACH

Launched in 2017, this large-scale applied research program is co-funded by Genome Canada in partnership with Génome Québec and Ontario Genomics, and in collaboration with the Research Institute of the McGill University Health Centre and The Hospital for Sick Children. The project arose from an initial 2012 investment with Génome Québec and Drs. Jabado and Majewski into the study of brain tumour mutations.

## 2. DELIVERING EFFECTIVE, PURPOSE-FIT PROGRAMS THAT SUPPORT OUR MISSION

*We supported equitable, diverse and inclusive research programs focused on excellence and impact. We further strengthened the impact of research and innovation through collaboration and coordination within academia and industry, both nationally and internationally.*

**Strong commitment to action on inclusion, diversity, equity and accessibility (IDEA).** We made progress on embedding IDEA principles and practices across our operations, workforce, programs, policies and governance structures:

- We continued to advance our IDEA strategy and roadmap to embed equity across our operations and programs and guide our work, building on our 2021-22 equity and anti-racism audit of our policies, procedures and practices and on the organizational mapping of IDEA-related needs and priorities.
- We consistently used two demographic questionnaires for all our funding opportunities: one for project leads and receptors and one for reviewers. The questionnaires are helping us address equity gaps as we develop, assess and maintain our peer review and application processes. We are working to expand questionnaire deployment using new tools and to systematize and streamline data collection.
- We engaged diverse internal and external stakeholders, particularly individuals with first-hand experience of our

funding programs and processes, to identify equity gaps and opportunities. The feedback gathered continues to inform the ongoing improvement of our programs and processes. We are currently exploring new targeted approaches to partnerships that will facilitate co-creation and benefit sharing with community-based partners.

- We upheld our 2020 commitment to the 50-30 Challenge to accelerate organizational diversity actions to improve equity. We continued to develop and apply our selection matrix for Board members. We also used a more inclusive screening, selection and hiring process through targeted Indigenous and equity-seeking groups and job boards and provided unconscious bias training for hiring committees.
- As part of our commitment to continuous learning, we developed and deployed a multi-year corporate training and development strategy. In 2023, staff participated in up to six training activities. These included a three-day coaching-based leadership program for directors and workshops on



managing neurodiversity in the workplace and on office mental health. In March 2024, we held all-staff sessions on effective communication, effective meetings and applying velocity to our work.

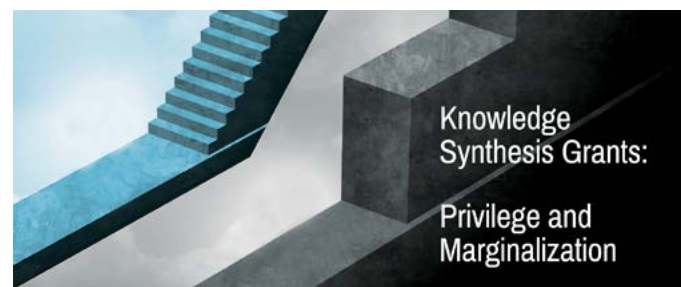
- As part of a provincial effort to address and correct historical disparities in pay based on gender and comply with Ontario's Pay Equity legislation, we initiated a market review and pay equity project, which involves the development and implementation of a job evaluation and classification system and a pay equity analysis. The project also addresses market competitiveness and internal equity.
- We continued to ensure that all documents and graphics posted to our website or included in our digital platforms are certified accessible, in keeping with best practices for Web Content Accessibility Guidelines and Accessibility for Ontarians with Disabilities Act compliance.

**Ongoing commitment to Indigenous truth, reconciliation and engagement (ITRE).** We continued to lay the groundwork for integrating ITRE into all aspects of our work:

- In October 2023, we launched a new Genome Canada Indigenous Engagement Charter outlining our commitment to a distinctions-based, future-focused genomics agenda predicated on the recognition of rights, respect, self-determination and partnership.
- As part of our ongoing training, staff engaged in a half-day interactive session with [Dr. Lana Potts](#), an Indigenous health and First Nation expert and family physician at the Siksika Health and Wellness Centre near Calgary. Dr. Potts provided critical perspectives on Indigenous health and wellbeing, and how they pertain to our work.
- We engaged with a wide range of Indigenous leaders across sectors and continued to support trailblazing Indigenous-led programs. These included [Silent Genomes](#) (funded by Genome Canada since 2017), which aims to reduce the healthcare disparities and improve diagnostics success for Indigenous children with genetic diseases); and the Summer Internship for Indigenous Peoples in Genomics ([SING Canada](#)), with a mandate to train Indigenous leadership in genomics and other international leaders walking the same path.

**Continued investment in the Regional Priorities Partnership Program (RP3).** This \$21 million [RP3 initiative](#), including \$6.0 million from Genome Canada and \$15.0 million in co-funding, supports Genome Centres in advancing genomics research and translation capacity through 21 projects in areas of strategic priority for their regions, including agriculture, fisheries and aquaculture, human health and data science. For example, in Ontario, an [RP3 project on hazelnuts](#) supports Ferrero Canada by providing genomics-driven stress-buster solutions to improve cold tolerance and mitigate the impacts of climate change on field grown hazelnut trees. In the Atlantic region, a [P.E.I.-based RP3](#) is generating genomic resources to facilitate the development of a mussel broodstock program and an easy transition to new genomic-based selection processes. We invested \$160,000 in 2023-24.

**Continued partnership with the Social Sciences and Humanities Research Council (SSHRC).** This partnership represents an investment of \$2.1 million, including \$1.2 million from Genome Canada and \$900,000 in co-funding.



Social Sciences and Humanities  
Research Council of Canada  
Conseil de recherches en  
sciences humaines du Canada



The [Societal Implications of Genomics Research](#) initiative supports social sciences and humanities research and related activities. SSHRC is the lead on peer review as applicants apply through its regular programs. To date we have launched 17 projects whose impacts include increasing understanding of consumer attitudes towards genetically modified food and enabling the growth of Indigenous-led and cross-cultural community-based wildlife monitoring programs that lead to a more resilient Arctic. We invested \$108,000 in 2023-24.

We are in the final year of an extended partnership with SSHRC on Knowledge Synthesis Grants (KSGs). This work will help inform and shape our strategic initiatives, move forward our IDEA strategy and engage social sciences and humanities leaders and experts in genomics. Last year we announced five genomics-related KSGs awarded in the area of [Shifting Dynamics of Privilege and Marginalization](#) (June 2023). We also participated in an international call for applicants in the area of [Evolving Cultures and Histories](#) (September 2023), with winners announced in spring 2024. We invested \$48,000 in 2023-24.



**Continued funding of the Genomics in Society Interdisciplinary Research Teams program.** This \$6.0 million knowledge translation program, including \$2.7 million from Genome Canada and \$3.3 million in co-funding, launched in February 2019, brings researchers from different disciplines together to investigate factors affecting the advancement, adoption, evaluation and governance of genomics research; and address issues at the intersection of genomics and society that will ultimately contribute to Canada's leadership and social and/or economic benefits across sectors. It is designed to support and enhance GE3LS research and support our commitment to inclusive, diverse, equitable and accessible genomics objectives. Importantly, this work addresses overarching challenges that affect the adoption and uptake of the outcomes from genomics research and/or accelerate the synthesis and dissemination of research pertinent to users, including policymakers, within a sector. We invested \$300,000 in 2023-24.

**Investment in the Canadian Bioinformatics Workshop (CBW).** The CBW has been a strong Canadian program supported by Genome Canada platforms for 20 years. By investing in the [CBW](#), we support training in bioinformatics and computational biology, which is critical to advancing genomic research, innovation and solutions in Canada. Specifically, our support helped restart in-person workshops after the COVID-19 pandemic. Since 2024 marks the 25th anniversary of Bioinformatics.ca and the Canadian Bioinformatics Workshops, the CBW laid the groundwork for hosting an event at the International Conference on Intelligent Systems for Molecular Biology (ISMB) in Montreal in summer 2024 to bring together alumni, faculty and the bioinformatics community to celebrate impact and showcase future enhancements and priorities. We invested \$127,000 in 2023-24.

**Enhancing international leadership.** Genome Canada collaborates in international efforts to tackle global challenges with genomic solutions, influence the global agenda, accelerate breakthroughs in Canada and raise the profile of Canadian efforts. In 2023-24 we invested a total of \$221,000 in a number of international initiatives including:

- **[The Global Alliance for Genomics and Health](#) (GA4GH)** represents 500+ member organizations from 71 countries focused on improving human health through global genomics and clinical data sharing. As a member since 2014, we have helped advance the development and uptake of standards for harmonized data sharing to enable responsible access to genomic and health-related data on tens of millions of individuals worldwide. Strategic collaboration with the GA4GH is critical to unlocking genomics innovation within Canada, both in the clinic and commercially. Moreover, Canada's strength in the development of genomic standards and policy through the GA4GH is a growth opportunity for global leadership and a powerful model for other sectors such as agriculture.
- Genome Canada represents Canada in the **[Global Biodata Coalition](#) (GBC)**, a forum for research funders to better coordinate and share approaches for the efficient management and growth of biodata resources worldwide. It aims to stabilize and ensure sustainable financial support for global biodata infrastructure and to identify, for prioritized long-term support,

a set of Global Core Data Resources crucial for sustaining this infrastructure. As the Canadian member of the GBC Board of Funders, we bring a broad Canadian perspective to discussions by engaging the Canadian ecosystem and linking it with these global efforts.

- The **[International Rare Disease Research Consortium](#) (IRDiRC)** unites national and international government, non-profit, for-profit, patient advocacy and scientific research organizations to promote international collaboration and advancement of rare diseases research. Through our continued membership, we bring to the table a strong foundation of investment in rare diseases, primarily in the diagnostics space, through a genomics lens. In October 2023, we hosted an IRDiRC satellite meeting in Montreal with CIHR and the Canadian Organization for Rare Disorders, bringing together decision-makers and leaders in rare disease to coordinate our efforts and drive greater impact in Canada and globally. We moderated two sessions with CIHR and helped develop the [report summary](#) released in February 2024.
- The **[Global Genomic Medicine Collaborative](#) (G2MC)** is an international community formed to advance the implementation of genomic medicine and improve health for all. As part of our international outreach and engagement, our Chief Scientific Officer, Dr. Catalina Lopez-Correa, holds a Co-Chair position at G2MC. We co-sponsored the G2MC annual conference held in Geneva, Switzerland in October 2023.

**Commitment to research security and cybersecurity.** National research security is receiving increasing federal policy attention in Canada given geopolitical dynamics and concerns.

- In the leadup to the January 2024 Government of Canada announcement of a new **[Policy on Sensitive Technology Research and Affiliations of Concern](#)**, representatives from across the Enterprise worked closely with the federal granting agencies, CFI and national third-party research organizations to align efforts and review and update security policies and procedures to better integrate national security considerations into activities.
- In anticipation of the signature of our new contribution agreement in spring 2024, work is underway to update the Genome Canada Research Security Policy, including fully compliant attestation and verification processes.
- All our IT and cyber security policies were reviewed and updated as needed in 2023, as part of our ongoing commitment to cyber security. Our employees must complete a mandatory awareness program and yearly refreshers and are subjected to monthly, random phishing simulations. Our cybersecurity plan has been in place and approved by ISED since August 2022.

### 3. PROMOTING THE RESPONSIBLE APPLICATION OF GENOMICS IN CANADA

*We provided national leadership and mobilized the Canadian genomics ecosystem in an ongoing national dialogue on genomics and policy. We worked collaboratively with stakeholders to harness the power of genomics to responsibly and ethically deliver equitable benefits for Canadians.*

**Canadian Genomics Strategy.** Building on our [Dialogue on the Future of Genomics in Canada](#) series, we supported federal work to advance the Canadian Genomics Strategy. We worked closely with ISED's communications team to propose and cross-promote exciting content for its Genomics Awareness Campaign in May to August 2023. The campaign showcased Canada as a world-class leader in genomics research, positioned to advance the commercialization and adoption of genomics technologies and innovations thanks to its robust research ecosystem, strong public health care system, diverse ecosystems, and abundant natural resources and agri-food sectors.



[Learn more about World Bee Day](#)

#### **Follow-through on the COP15 Global Biodiversity Framework.**

Building on Canada's leadership as COP15 host in December 2022 and our [engagement at the event](#), we continued to work closely with scientists funded through the Enterprise to deepen collaborations aimed at establishing a biodiversity genomics network for Canada and preparing a response to the [2030 National Biodiversity Strategy](#).

- In July 2023, we made a [submission on behalf](#) of the Enterprise to the Environment and Climate Change Canada 2030 Biodiversity Strategy Consultation, sharing six recommendations to accelerate Canada's ability to meet its national and international biodiversity goals.
- In October 2023 we participated in the [GEO BON Global Conference](#) in Montreal focused on monitoring biodiversity for action. A team of Enterprise staff led a workshop, "Biodiversity Monitoring in Canada: Coordinating Genomics Methods and Data Across Initiatives in Canada and Worldwide—A Call for Action", attended by more than 65 people. We published a [meeting report](#) in January 2024.

**Continued outreach leveraging strategic partnerships.** We engaged in a broad range of outreach activities to promote the role of genomics in Canadian public policy through high-profile platforms with significant reach into public policy, business and researcher audiences in 2023-24. We applied a strong IDEA and next-generation talent lens across these engagement efforts.

#### **Science ecosystem partnerships**

- **Canadian Institutes of Health Research (CIHR).** We collaborated on a number of fronts in 2023-24:
  - » In October 2023, we partnered with five CIHR Institutes, the Centre for Research on Pandemic Preparedness and Health Emergencies and Mitacs to invest in the [2024/25 Health Research Training Platform](#) (H RTP) funding opportunity. The H RTP aims to support early-career Canadian researchers building careers in bioinformatics, computational biology or health data sciences. Genomics research applicants are eligible for a \$6 million grant within one of the five pools, and results are anticipated in fall 2024. We committed to a \$500,000 investment.
  - » Later the same month, the Minister of Health, the Honourable Mark Holland, announced a \$15 million investment for CIHR to create the first-of-its-kind [Pan-Canadian Genome Library](#), in which Genome Canada is a strategic partner. The Library will make it easier to share genomic data across the country, enabling better and more equitable health outcomes for Canadians. Our existing investments kickstarted the Library's work: its first two datasets will be from the 10,000 sequenced host genomes in the Canadian [COVID-19 Genomics Network's \(CanCOGeN\) Host Seq](#) platform led by [CGEn](#); and from sequences from [All For One](#), the national rare disease initiative that has enabled equitable access to genome-wide sequencing across nine provinces.
  - » In collaboration with Génome Québec and through the CIHR Planning and Dissemination Grant competition, we supported the [World Congress of Psychiatric Genetics](#) held in Montreal in October 2023. The Congress attracted world-leading experts in genetics, neuroscience and psychiatry. Its focus was how unprecedented data availability has moved us from gene-identification to understanding mechanisms of psychiatric disorders, allowing for a rethinking of categorization and for new interventions.
- **Genomics Research and Development Initiative (GRDI) and the National Research Council (NRC).** We collaborated broadly with major federally funded genomics initiatives, leveraging our unique national mandate and federated network, strategic approach and cross-sectoral expertise to advance and support federal priorities. As part of our longstanding strategic relationship, our Science and Industry Advisory Committee includes a GRDI permanent representative.
- **Canadian Chamber of Commerce (CCC).** As a member of CCC, we are active in two key councils and one committee that support our priorities in agriculture and health. We serve on the [Food Supply Council](#), a cross-sectoral





## RESEARCH IN ACTION:

### CONSERVING BIODIVERSITY

Canada is the second largest country, with over 15 million square kilometres of land and water. It has around 24% of the world's wetlands, 20% of its freshwater and 8% of its forests. Canadians reside in diverse natural landscapes, ranging from coastal regions to Arctic tundra, prairie grasslands to mountainous terrain, and even deserts. Given the richness and variety of these natural treasures, conserving biodiversity, and halting and reversing biodiversity loss, is a key priority of the Government of Canada. Genomics has an important role to play in the protection of our living species and ecosystems.

### PROJECT SPOTLIGHT

An example of such work is the [caribou genomics](#) project. It focuses on caribou, an iconic species in Canada, identified by Environment and Climate Change Canada (ECCC) as a priority species for recovery. A team co-led by Dr. Paul Wilson, Professor of Biology in Conservation Genomics & DNA Technology at Trent University and former Canada Research Chair in DNA Profiling, Forensics and Functional Genomics and Dr. Micheline Manseau, Research Scientist in the Science and Technology Division at Environment and Climate Change Canada (ECCC), is building a caribou genomics platform for long-term, non-invasive genomic monitoring of caribou using an open access platform that enables data compatibility and analytical toolkit compatibility across other research teams. Over space and time, such a monitoring platform will identify the best approach to conservation of the species and provide a template for other wildlife species nationally and internationally.

### A PARTNERSHIP APPROACH

A broad spectrum of partners is required in ecosystem initiatives to achieve environmental results and sustainable development. This project is co-funded by Genome Canada and Ontario Genomics in collaboration with Trent University, ECCC, Alberta Ministry of Environment and Protected Areas, and Saskatchewan Environment, and is working in partnership with other government agencies, industry and Indigenous communities.

coalition of Canada's leading agriculture and transportation businesses and associations addressing the challenges arising from an increasingly unstable, globally integrated, food supply system. We also have a seat on the [Agriculture and Agri-Food Committee](#) responsible for developing and advocating positions to advance the sector's interests both across the agriculture sector and along different segments of the value chain. Additionally, we serve on



*Boreal caribou in the Northwest Territories.*

*Photo credit: Pierre-Emmanuel Chaillon, Epéchile.*

the [Life Sciences Strategy Council](#), which is made up of public- and private-sector leaders aligned in the pursuit of a globally competitive, integrated life sciences sector that spans the entire spectrum of activities from research to manufacturing to the commercialization of innovations.

## Science event and policy engagement

- **Public Policy Forum (PPF) Life Sciences Forum.** As a member of [PPF](#), we participated in its [Life Sciences Forum](#) events last year, including a November 2023 event, [“The Next One: Preparing Canada for another health emergency.”](#) The event built on a previous PPF Life Sciences panel on [Science Helped Save Us: What's Next](#), featuring Dr. Rob Annan alongside James Brodie of Johnson & Johnson MedTech and Ivan Semeniuk of The Globe and Mail.
- **Agri-Food Innovation Council (AIC).** At [AIC](#)'s annual spring engagement session in April 2023, we hosted a panel on genomics-enabled innovation in agriculture, featuring Dr. Stéphanie Lord-Fontaine (Génome Québec), Mike Cey (Genome Prairie) and Michael Dorrington (Ontario Genomics) and moderated by our own Dr. Ryan Philippe, Director of Strategic Partnerships and Innovation. We also attended a half-day session of meetings with senior officials from the Prime Minister's Office, ISED, AAFC and Environment and Climate Change Canada on the importance of science and innovation in driving Canada's agricultural policy.
- **Canada SynBio.** Organized by Ontario Genomics, the June [2023 Canada SynBio](#) conference was an energizing national gathering of entrepreneurs, academics, policymakers and engineering biology professionals. It built on the growing momentum in the sector, demonstrated by new



ventures and funding programs and foreign investment in biomanufacturing. Speakers and attendees highlighted the importance of engineering biology-enabled solutions to address society's greatest challenges. Our CEO, Dr. Rob Annan, provided event opening remarks and Dr. Ryan Philippe moderated a coast-to-coast panel on synthetic biology and bioengineering projects driving innovation across Canada.

- **BIOTECanada.** As members of [BIOTECanada](#), staff from Genome Canada, Ontario Genomics and Génome Québec attended BIO International 2023 in Boston as active members of Team Canada.
- **Canadian Science Policy Centre (CSPC).** Our long-standing strategic partnership with [CSPC](#), which centres genomics in national science policy, science communications and next-generation science talent initiatives, once again generated excellent professional development opportunities for staff, as well as strategic networking venues, including on the tradeshow floor and at the gala and VIP events.
- **Gairdner Science Week.** In October 2023 we were a silver level sponsor of the [2023 Gairdner Science Week](#) in partnership with Ontario Genomics. This series of events and lectures celebrated the 2023 Canada Gairdner Award laureates, fostered STEM outreach and explored the future of artificial intelligence (AI) in science and medicine.
- **Effervescence.** We collaborated with Génome Québec to organize a May 2023 [Effervescence](#) panel, featuring Josette-Renée Landry, President and CEO of Génome Québec, on "Genomics: A powerful weapon against the world's top ten public health threats." The Montreal event on the intersection of AI and the life sciences brought together over 650 mainly francophone scientists, entrepreneurs, students, investors and professionals.

## Talent and next-generation skills engagement

- **Let's Talk Science.** We partnered with [Let's Talk Science](#) and other organizations to deliver a [six-part online series](#) (four in English, two in French) that celebrated discovery and innovation. The events ran from October 2023 to May 2024 and reached 5,000 high school students and 220 educators across the country. Star scientists and experts discussed the impact of their work and the pathway to their current careers. The series helped build STEM literacy and inspired youth to consider STEM careers and education. Topics included personalized, women's and mental health; AI and disruptive innovations; astronomy and astrobiology; and forest health.
- **Summer Internship for Indigenous Peoples in Genomics Canada (SING Canada).** We continued our partnership with [SING Canada](#) through a strategic funding agreement that invests \$240,000 over three years. SING is transforming relationships between Indigenous communities and genomics researchers by building Indigenous technical capacity to do genomics, training aspiring scientists and Indigenous community members, and engaging non-Indigenous genome researchers to enhance their understanding of Indigenous knowledge, governance and worldviews. The summer 2023 cohort of nine participants did



*SING 2023 cohort on #LandBack: Indigenous Peoples, Soil Science, and Disruptive Sequencing Technologies (Photo credit: Esta Baker)*

- **First Nations Information Governance Centre (FNIGC).** As part of our work to redress historic and ongoing inequities in genomics and lift up Indigenous genomics leadership, we supported the creation of a Community Resource Toolkit to help [FNIGC's](#) Regional Partners and community members engage in meaningful dialogue on biobanking and genomic research. This is just one activity within our stand-alone, distinctions-based Indigenous strategy to foster relations that respect and advance self-determination in alignment with the United Nations Declaration on the Rights of Indigenous Peoples and the principles of Indigenous data sovereignty.
- **Mission eDNA.** In support of citizen science, we continued to partner with Génome Québec on [Mission eDNA](#), a pilot project rooted in the [FISHES](#) pan-Canadian initiative. It launched in September 2022 in seven classes in two high schools in the Eeyou Istchee (Cree) communities of Waskaganish and Eastmain. With Fonds de recherche du Québec now on board, we have adapted this work for deployment in more Indigenous communities and customized teaching materials to foster interesting and culturally relevant engagement with science. The project has also expanded to include Innu communities in northern Quebec.
- **Canada-wide Science Fair.** In collaboration with Genome Alberta, we sponsored this [prestigious youth STEM](#) event held in Edmonton in May 2023. With a focus on young scientists in grades 7-12, this fair brought together 700+ of the nation's brightest young minds and celebrated their passion for science, technology, engineering and mathematics (STEM) and innovation, propelling them into national and international competitions that build experience and curiosity.
- **Student financial support.** We supported next-generation science minds with travel/attendance funding support at a number of events. For example:
  - » We sponsored three students to attend the [Canadian National Proteomics Network](#) symposium in Regina in May 2023.
  - » For the [SSHRC Storytellers](#) Event at the 2023 Congress of the Humanities and Social Sciences at York University in May, we sponsored student competitors and provided a judge for the final live competition.
  - » At the Canadian Water Network's annual [Blue Cities](#) event in Toronto in October 2023, we donated registrations to underrepresented students to attend programming and the reception we co-hosted with Ontario Genomics.

## OPERATING CHALLENGES IN 2023-24

*Genome Canada now receives funding via the federal government's Strategic Science Fund (SSF), the results of which were announced in December 2023. Given the uncertainty before that announcement, we were cautious about committing funds and resources on a number of programs and initiatives. The results of the SSF provide a welcome five-year runway for delivering on a national action plan that harnesses Canada's genomics ecosystem to address the major economic, environmental, health and social challenges of our time.*

With a leaner funding profile, we refocused our strategic action planning efforts, are realigning our resources accordingly, and are working with the regional Genome Centres to ensure the continued health of our collaborative model. We necessarily had to abandon some initiatives and redirect attention to core projects. We are working with the Centres and others in our ecosystem to lay new foundations for the next five years of funding, and to ensure we will continue to deliver maximum impact for Canadians.

Overall, we have navigated the SSF outcomes well and have made intentional and strategic decisions to maximize our future investment. Importantly, we now have a stable, predictable five-year funding model in place and are able to move forward with greater certainty and focus. This will be clearly reflected in our five-year strategic action plan coming in fall 2024.







## LOOKING AHEAD TO 2024-25

*As we look ahead, we see many opportunities for Canadian genomic innovations to support a prosperous and healthy Canada. Our focus in the coming year (and beyond) will be to invest in and support the development of impactful, transformative genomic solutions to address three of the most urgent challenges facing Canadians and the world: personalized and public health, food and agriculture, and climate change and biodiversity. Our work will be grounded in and guided by our new five-year strategic action plan.*

As we move into the third year of the [Climate-Smart Agriculture and Food Systems](#) initiative, we will announce two new connector Hubs in summer 2024 and continue to support the nine ongoing cutting-edge applied research projects that strive to reduce the carbon footprint of Canada's food production systems—building their resiliency, environmental sustainability and economic viability. We will also begin designing and laying the groundwork for a new initiative that will unleash the power of genomics to support and grow Canada's resource-based economy and, at the same time, safeguard the life of our forests, prairies, lakes and oceans in the face of climate change.

Our primary focus for 2024-25 will be our next big health initiative: working with partners to support the application of genomics as a foundation for precision health and medicine in Canada. This will be our largest investment over the next five years, and likely our largest investment ever in a single initiative. More specifically, we intend to collaborate with the public, academia and industry leaders to build a comprehensive Canadian databank to improve the diagnosis, screening and treatment of disease; enhance public health monitoring and reduce costs; support health innovation and commercialization; and advance better health outcomes for Canadians. With genomic data being a critical input for AI development and a driver of innovation in AI tools and products, Genome Canada will work with leaders of the Pan-Canadian AI Strategy and build on Canada's excellence in AI to ensure the databank serve as a critical tool in advancing the Government of Canada's mandate and priorities around AI.

As part of the new health initiative, we will continue to advance important priorities in surveillance, training and capacity building, and IDEA. We will make investments to increase the regional uptake of eDNA as a genomic surveillance tool for public health, conservation and biodiversity assessment, and monitoring. We will build on our history of supporting training and capacity building through a partnership with CIHR. [The Health Research Training Platform](#) aims to attract and equip a diverse cadre of trainees and early-career researchers with foundational bioinformatics, computational biology and health data science skills and knowledge. We will also continue to support stand-alone projects creating opportunities and benefits for Indigenous communities, such as [Silent Genomes](#) and the [Summer Internship for Indigenous Peoples in Genomics](#).

Addressing complex challenges requires a whole-of-ecosystem approach. We will provide strategic coordination and work closely with the regional Genome Centres, governments, researchers, industry and other stakeholders across the country to catalyze research, innovation and commercialization, and promote responsible and equitable application of genomics.

Genomics is a global enterprise. We will continue to represent Canada in global genomics initiatives, promote its leadership and pursue strategic partnerships with key organizations abroad who are also working to bring genomics to bear on the world's biggest challenges.

**Finally, Genome Canada will be turning 25 in 2025.** As part of the anniversary celebrations, we will be organizing events and marking the occasion with the genomics community across the country.

# OPERATIONS

## GOVERNANCE

Genome Canada is **governed by our Board of Directors**, composed of up to 16 individuals drawn from the academic, private and public sectors. Directors bring unique skills and experiences, as well as strong interests and insights to successfully fulfil our strategic plan. A Director may generally hold office for a maximum of three two-year terms, apart from the Chair, who may hold office as Director for a maximum of four two-year terms, and the President and CEO, who is appointed annually.

The Board has overall responsibility for the stewardship of our business and affairs. To help with the discharge of these duties, the Board has five standing committees:

1. Audit and Investment Committee
2. Communications and Outreach Committee
3. Executive Committee
4. Governance, Election and Compensation Committee
5. Programs Committee

Additionally, the Science and Industry Advisory Committee provides strategic advice to help us achieve our objectives. Comprising national and international experts from diverse scientific disciplines and industry sectors, the committee provides insights and recommendations on emerging trends, technological advancements and research priorities. Its advice ensures that our initiatives align with both scientific

innovation and community needs, ultimately fostering the development and commercialization of genomics solutions that benefit society and drive economic growth.

### Number of meetings held by the Board and its committees in 2023-24

Board of Directors	7
Audit and Investment Committee	4
Communications and Outreach Committee	0
Executive Committee	0
Governance, Election and Compensation Committee	5
Programs Committee	4
Science and Industry Advisory Committee	1

## BOARD OF DIRECTORS AND SCIENCE AND INDUSTRY ADVISORY COMMITTEE MEMBERS IN 2023-24

### Board of Directors

**Elizabeth Douville (Chair)**  
President and CEO  
IRICoR  
*Montreal, Quebec*

**Bonnie Schmidt (Vice-Chair)**  
Founder and President  
Let's Talk Science  
*London, Ontario*

**Rob Annan**  
President and CEO  
Genome Canada  
*Ottawa, Ontario*

**Deborah Buszard**  
Interim President (now retired)  
The University of British Columbia  
*Kamloops, British Columbia*

**Jennifer Gardy**  
Deputy Director, Surveillance, Data & Epidemiology  
Bill & Melinda Gates Foundation  
*Chicago, Illinois, U.S.*

**Ivo Gut**  
Director  
Centro Nacional de Análisis Genómico (CNAG)  
*Barcelona, Spain*

**Avak Kahvejian**  
General Partner  
Flagship Pioneering  
*Cambridge, Massachusetts, U.S.*  
*(as of September 2023)*

**Muhammad Mamdani**  
Vice-President,  
Data Science and Advanced Analytics  
Unity Health Toronto  
*Toronto, Ontario*  
*(until August 2023)*

**Ian Rae**  
President and CEO  
Aptum  
*Montreal, Quebec*  
*(until June 2023)*

**Ingrid Richter**  
Partner, Threshold Associates  
Executive-in-Residence,  
University of Ottawa  
*Ottawa, Ontario*  
*(as of June 2023)*

**Andrew Stephens**  
Corporate Director and retired  
oil and gas executive  
*Canmore, Alberta*

**Éliane Ubalijoro**  
Chief Executive Officer, CIFOR-ICRAF  
Director General, ICRAF  
*Nairobi, Kenya*

**Colin Webster**  
Vice-President, Sustainability  
and External Affairs  
Alamos Gold Inc.  
*Burlington, Ontario*  
*(as of December 2023)*



## Science and Industry Advisory Committee

### Cami Ryan

(Chair as of December 2023)

Senior Business Partner, Industry Affairs  
and Sustainability  
Bayer CropScience Canada  
Calgary, Alberta

### Wyeth Wasserman

(Chair until December 2023)

Professor, Medical Genetics, University of  
British Columbia  
Investigator, BC Children's Hospital  
Research Institute  
Vancouver, British Columbia

### Anne-Christine Bonfils

Research Program Manager, Vice-  
President's Office – Life Sciences  
National Research Council of Canada  
Ottawa, Ontario

### Iain Gillespie

Principal and Vice-Chancellor  
University of Dundee  
Dundee, Scotland

### Tina Hambuch

Medical Director, Molecular Genetics  
Research and Development  
Quest Diagnostics Incorporated  
San Diego, California, U.S.  
(until June 2023)

### John MacKay

Wood Professor of Forest Science,  
Department of Plant Sciences  
University of Oxford  
Oxford, England

### Sohrab Shah

Chief of Computational Oncology,  
Department of Epidemiology &  
Biostatistics, Memorial Sloan  
Kettering Cancer Center  
Professor, Weill Cornell Medical College  
New York, New York, U.S.  
(as of June 2023)

### Jeremy Shears

Chief Scientist - Biosciences  
Shell  
London, England

### Susan M. Wood-Bohm

President and CEO  
Wood-Bohm and Associates  
Douro-Dummer, Ontario

### Rae S.M. Yeung

Professor of Pediatrics, Immunology and  
Medical Science, University of Toronto  
Staff Rheumatologist,  
The Hospital for Sick Children  
Toronto, Ontario

## Management Team

### Rob Annan

President and Chief Executive Officer

### Naveed Aziz

Vice-President, Research and Innovation  
(as of January 2024)

### Catalina Lopez-Correa

Chief Scientific Officer

### Pari Johnston

Vice-President, Policy and Public Affairs  
(until November 2023)

### Dalia Morcos Fraser

Vice-President, Corporate Services  
and Chief Financial Officer



In March 2024, we were delighted to announce that Genome Canada had, for the second time, been named **Top Employer for the National Capital Region**. “The commitment and energy of our employees are at the very heart of our organization and drive our impact,” said President and CEO Dr. Annan about this accomplishment.

Welcome

Naveed Aziz

Vice-President, Research and  
Innovation

In January 2024, we welcomed our new Vice-President, Research and Innovation, Naveed Aziz.

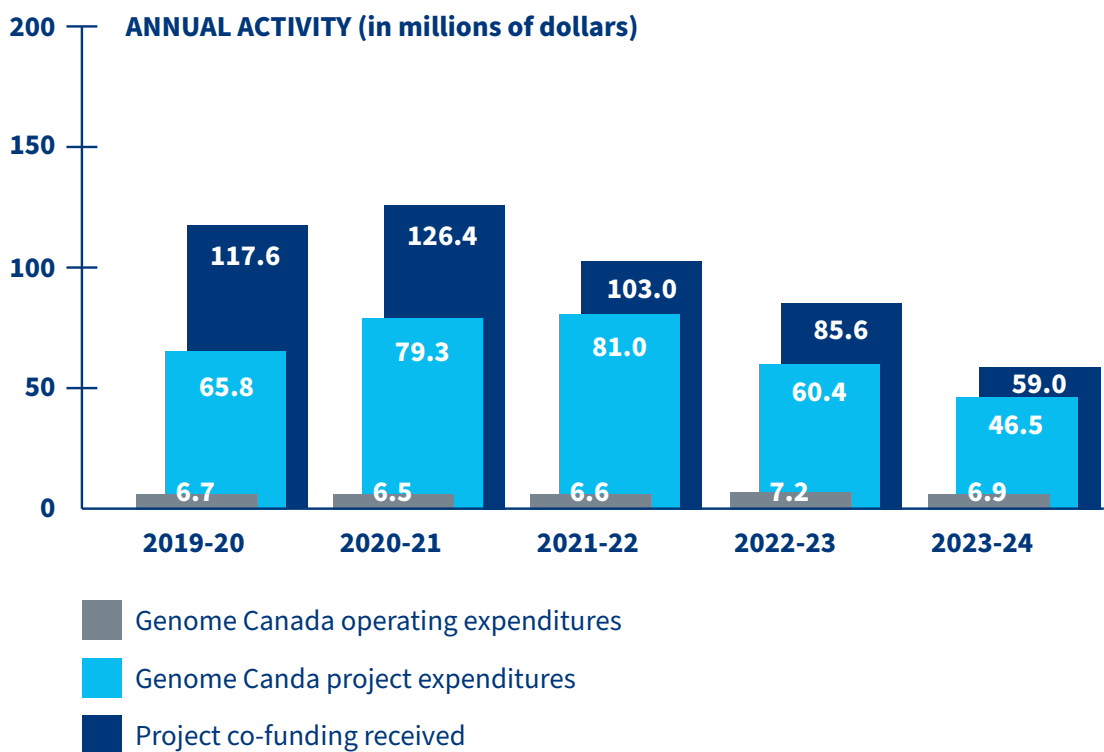
# FINANCIAL MANAGEMENT

*Genome Canada, along with co-funding partners, has invested approximately \$4.0 billion in genomics research since our creation in 2000. We provided approximately \$1.6 billion of this through our federal funding; the remaining \$2.4 billion has come from national and international organizations, federal and provincial governments, universities and private- and public-sector partners. This investment supports large-scale science, access to leading-edge technology, translation, and the operations of Genome Canada and the six regional Genome Centres.*

All research projects, with few exceptions, require co-funding to be secured by the applicants. Genome Canada’s required funding ratio for co-funding was 1:1 prior to 2012 and has risen to 1:1.4 since that time, reflective of our commitment to growing our partnership model.

We receive funding each year from the federal government based on active contribution agreements. Working closely with the six regional Genome Centres, program funding is distributed, and the Centres oversee the funding to projects located in their regions. In addition, the projects, administered at institutions, receive funding directly from the required co-funders. The Centres and project leaders must report co-funding secured quarterly to Genome Canada to ensure co-funding requirements are adhered to. Through this process, both Genome Canada and the Centres monitor total project investment.

The total annual financial investment is shown in the graph below. Project leaders managed \$105.5 million in funding in 2023-24, of which \$46.5 million was from Genome Canada and \$59.0 million was through co-funding.



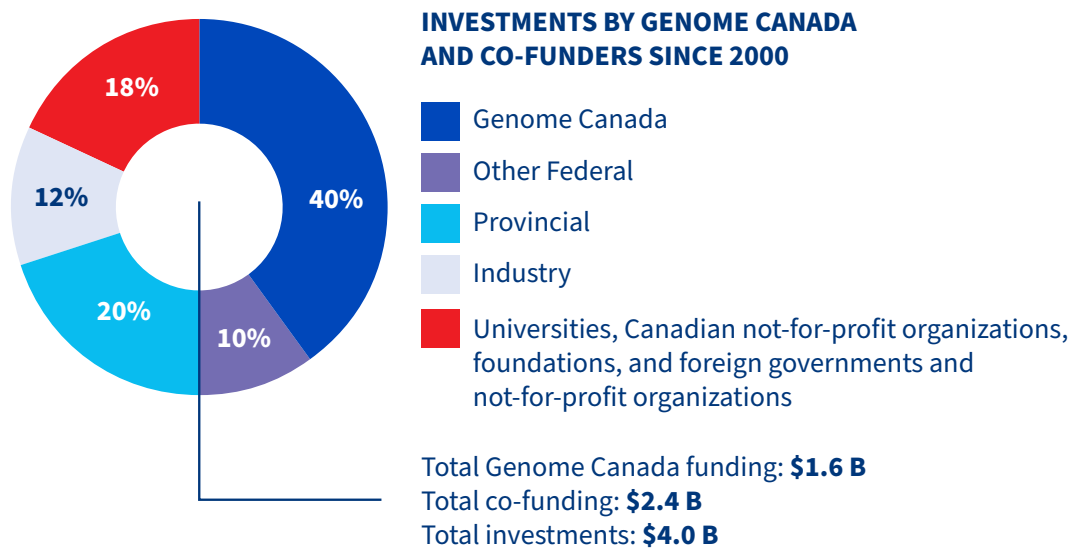
A small portion of the federal funding is also dedicated to support our operations. Genome Canada’s operating costs were \$6.9 million in 2023-24. Operations include, but are not limited to, activities relating to program management, strategy, policy and communications, genomics in society, governance, performance and evaluation, and administration.

Our operating costs include the following remuneration in relation to our governance. All Board members and Science and Industry Advisory Committee members receive remuneration from Genome Canada, and we reimburse directors for expenses to attend biannual strategic sessions.

The compensation policy for employees includes job classifications and related salary ranges. Our employees are eligible for annual performance awards of up to 10 per cent and Vice-President/CSO awards can be up to 20 per cent. For positions that exceeded \$100,000 by March 31, 2024, the following were the annual salary ranges:

President and CEO:	\$288,400 to \$357,410
Vice-Presidents and CSO:	\$153,152 to \$229,727
Directors:	\$92,484 to \$178,520
Managers and Specialists:	\$71,868 to \$107,803

Since 2000, a total of approximately \$4.0 billion has been invested in genomics research in Canada, including approximately \$1.6 billion from Genome Canada and \$2.4 billion from co-funders, made up of \$360 million from other federal sources, \$790 million from provinces, \$490 million from industry and \$740 million from Canadian non-for-profit organization, foundations and foreign governments and not-for-profit organizations.



# APPENDICES

## ACTIVE PROJECTS FUNDED 2023-24

### LARGE-SCALE SCIENCE

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
<b>LARGE-SCALE APPLIED RESEARCH PROJECTS (LSARP)</b>						
Genome Alberta Ontario Genomics	Forestry	Cooke, Janice Cullingham, Catherine	University of Alberta Carleton University	TRIA-For: Transformative Risk Assessment and Forest Resilience Using Genomic Tools for the Mountain Pine Beetle Outbreak	\$6,431,135	\$2,999,994
Genome Alberta Génome Québec	Environment	Muench, Douglas Martineau, Christine	University of Calgary Natural Resources Canada	Application of Genomics to Enhance Wetland Treatment Systems for Remediation of Processed Water in Northern Environments	\$6,379,093	\$2,983,534
Genome British Columbia Génome Québec	Environment	Helbing, Caren Langlois, Valérie Dupras, Jérôme Bernatchez, Louis	University of Victoria Institut national de la recherche scientifique Université du Québec en Outaouais Université Laval	iTrackDNA: Non-Destructive Precision Genomics for Environmental Impact Tracking in a Global Climate Change Era	\$11,979,761	\$3,000,000
Genome British Columbia Genome Alberta	Agriculture	Jones, Steven Murray, Maribeth	BC Cancer Michael Smith Genome Sciences Centre University of Calgary	The Canadian BioGenome Project	\$6,294,530	\$2,999,963
Genome Atlantic	Environment	Frasier, Timothy Hamilton, Philip	Saint Mary's University New England Aquarium	Conservation Genomics of the Endangered North Atlantic Right Whale	\$6,020,874	\$2,119,435
Genome Prairie	Environment	Stern, Gary Collins, Eric	University of Manitoba	Reimagining Monitored Natural Attenuation as an Oil Spill Response Strategy in the Arctic	\$6,570,702	\$2,998,477
Ontario Genomics	Environment	Yang, Laurence Zechel, David DiCenzo, George McLellan, P. James	Queen's University	Optimizing a Microbial Platform to Break Down and Valorize Waste Plastic	\$7,675,843	\$3,000,000
Ontario Genomics	Environment	Hébert, Paul	University of Guelph	BIOSCAN–Canada	\$6,999,588	\$3,000,000
Genome Alberta Ontario Genomics Genome British Columbia Génome Québec	Agriculture	Baes, Christine Stothard, Paul Cerri, Ronaldo Sirard, Marc-André	University of Guelph University of Alberta The University of British Columbia Université Laval	Integrating Genomic Approaches to Improve Dairy Cattle Resilience: A Comprehensive Goal to Enhance Canadian Dairy Industry Sustainability	\$12,541,132	\$3,997,769
Genome British Columbia	Agriculture	Birol, Inanc	The University of British Columbia	PeptAid – Antimicrobial Peptides to Replace Antibiotics in Farm Veterinary Practice	\$6,887,638	\$3,441,747
Genome Prairie	Agriculture	Bett, Kirstin Vandenberg, Albert	University of Saskatchewan	Enhancing the Value of Lentil Variation for Ecosystem Survival (EVOLVES)	\$7,432,398	\$3,519,023
Genome Prairie Genome Alberta	Agriculture	Waldner, Cheryl Otto, Simon	University of Saskatchewan University of Alberta	Genomic ASSETS (Antimicrobial Stewardship Systems from Evidence-based Treatment Strategies) for Livestock	\$5,678,154	\$2,540,323
Genome Prairie Ontario Genomics	Agriculture	Pozniak, Curtis Cloutier, Sylvie	University of Saskatchewan Agriculture and Agri-Food Canada	4DWheat: Diversity, Discovery, Design and Delivery	\$11,166,747	\$4,044,856
Génome Québec Ontario Genomics	Fisheries	Bernatchez, Louis Moore, Jean-Sebastian Fraser, Dylan J. Schott, Stephan	Université Laval Concordia University Carleton University	FISHES: Fostering Indigenous Small-Scale fisheries for Health, Economy, and Food Security	\$14,404,554	\$4,000,000
Ontario Genomics Genome British Columbia	Agriculture	Zayed, Amro Foster, Leonard	York University The University of British Columbia	BeeCSI: 'Omic Tools for Assessing Bee Health	\$9,922,052	\$3,831,866
Ontario Genomics Genome Prairie	Fisheries	Heath, Daniel Docker, Margaret Cooke, Steven J.	University of Windsor University of Manitoba Carleton University	GEN-FISH: Genomic Network for Fish Identification, Stress and Health	\$9,072,963	\$3,999,815
Genome Alberta	Health	Lewis, Ian Benediktsson, Hallgrímur	University of Calgary Calgary Laboratory Services	Reducing the Global Burden of Infectious Diseases through Precision Population Health	\$11,030,405	\$2,103,371



CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Genome British Columbia	Health	Arbour, Laura Caron, Nadine Wasserman, Wyeth W.	The University of British Columbia BC Children's Hospital Research Institute	Silent Genomes: Reducing Health-Care Disparities and Improving Diagnostic Success for Indigenous Children with Genetic Disease	\$9,673,479	\$2,200,000
Genome British Columbia	Health	Carleton, Bruce C. Ross, Colin J.	The University of British Columbia	Genomic and Outcomes Database for Pharmacogenomics and Implementation Studies (Go-PGx)	\$10,517,507	\$1,899,963
Genome British Columbia	Health	Steidl, Christian Marra, Marco Scott, David	BC Cancer Research Centre The University of British Columbia	Deciphering the Genome Biology of Relapsed Lymphoid Cancers to Improve Patient Management	\$11,926,360	\$2,100,000
Genome British Columbia Génome Québec	Health	Elliott, Alison M. Knoppers, Bartha Lynd, Larry Austin, Jehannine	BC Provincial Health Services Authority McGill University The University of British Columbia	GenCOUNSEL: Optimization of Genetic Counselling for Clinical Implementation of Genome-wide Sequencing	\$3,943,809	\$1,004,017
Genome British Columbia Génome Québec Genome Alberta	Health	Keown, Paul Sapir-Pichhadze, Ruth Caulfield, Timothy Bryan, Stirling	The University of British Columbia McGill University University of Alberta	Precision Medicine CanPREVENT AMR: Applying Precision Medicine Technologies in Canada to Prevent Antibody-Mediated Rejection and Premature Kidney Transplant Loss	\$10,834,538	\$2,036,000
Genome British Columbia Ontario Genomics	Health	Turvey, Stuart Kobor, Michael Finlay, Brett Subbarao, Padmaja	The University of British Columbia The Hospital for Sick Children	Childhood Asthma and the Microbiome - Precision Health for Life: The Canadian Healthy Infant Longitudinal Development (CHILD) Study	\$8,580,968	\$4,569,644
Génome Québec	Health	Sauvageau, Guy Hébert, Josée	Institute for Research in Immunology and Cancer Hôpital Maisonneuve-Rosemont	Interrogating and Implementing Omics for Precision Medicine in Acute Myeloid Leukemia	\$12,785,000	\$5,000,000
Génome Québec Genome British Columbia	Health	Rousseau, François Langlois, Sylvie	Université Laval The University of British Columbia	PEGASUS-2 - Personalized Genomics for Prenatal Abnormalities Screening Using Maternal Blood: Towards First Tier Screening and Beyond	\$12,241,625	\$2,198,882
Génome Québec Ontario Genomics	Health	Jabado, Nada Taylor, Michael Majewski, Jacek	Research Institute of the McGill University Health Centre The Hospital for Sick Children	Tackling Childhood Brain Cancer at the Root to Improve Survival and Quality of Life	\$12,997,397	\$2,349,822
Génome Québec Ontario Genomics	Health	Simard, Jacques Chiarelli, Anna Maria	Université Laval Cancer Care Ontario	Personalized Risk Assessment for Prevention and Early Detection of Breast Cancer: Integration and Implementation	\$15,217,975	\$100,000
Ontario Genomics	Health	Ratjen, Felix	The Hospital for Sick Children	Personalized Therapy for Individuals with Cystic Fibrosis	\$9,488,508	\$4,999,907
Ontario Genomics	Health	Stintzi, Alain Mack, David	University of Ottawa Children's Hospital of Eastern Ontario	Microbiome-Based Precision Medicine in Inflammatory Bowel Disease	\$9,266,995	\$4,555,624
Ontario Genomics Genome Alberta	Health	Yeung, Rae S.M. Benseler, Susanne M.	The Hospital for Sick Children University of Calgary	UCAN CURE: Precision Decisions for Childhood Arthritis	\$9,298,208	\$5,000,000
Ontario Genomics Genome Alberta Genome British Columbia	Health	Boycott, Kym Brudno, Michael Bernier, François van Karnebeek, Clara	Children's Hospital of Eastern Ontario Research Institute The Hospital for Sick Children University of Calgary The University of British Columbia	Care4Rare Canada: Harnessing Multi-Omics to Deliver Innovative Diagnostic Care for Rare Genetic Diseases in Canada (C4R-SOLVE)	\$10,096,606	\$2,198,898
Genome Alberta Genome Prairie	Environment	Hubert, Casey Stern, Gary	University of Calgary University of Manitoba	GENICE: Microbial Genomics for Oil Spill Preparedness in Canada's Arctic Marine Environment	\$10,612,988	\$2,999,422
Génome Québec Genome Prairie	Environment	Basu, Niladri Hecker, Markus Crump, Doug	McGill University University of Saskatchewan Environment and Climate Change Canada	EcoToxChip: A Toxicogenomics Tool for Chemical Prioritization and Environmental Management	\$9,786,922	\$3,104,002
Ontario Genomics	Environment	Lougheed, Stephen C. van Coeverden de Groot, Peter Whitelaw, Graham Dyck, Markus	Queen's University Government of Nunavut	BEARWATCH: Monitoring Impacts of Arctic Climate Change using Polar Bears, Genomics and Traditional Ecological Knowledge	\$9,219,247	\$2,708,282
Ontario Genomics	Mining	Warren, Lesley A. Banfield, Jillian	The University of Toronto	Mine Wastewater Solutions: Next Generation Biological Treatment through Functional Genomics	\$3,682,691	\$1,181,739

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Ontario Genomics Genome British Columbia	Forestry	Master, Emma Brumer, Harry	The University of Toronto The University of British Columbia	SYNBIOMICS: Functional Genomics and Techno-Economic Models for Advanced Biopolymer Synthesis	\$10,725,222	\$2,830,771
Genome British Columbia	Agriculture	Rieseberg, Loren H. Burke, John M.	The University of British Columbia	Genomics of Abiotic Stress Resistance in Wild and Cultivated Sunflowers	\$7,879,009	\$3,054,485
EMERGING ISSUES						
Genome Atlantic	Health	Hatchette, Todd Ogden, Nicholas Lindsay, Robbin	Dalhousie University Public Health Agency of Canada	Lyme Disease in NS: The Influence of Strain Variation on Clinical Disease	\$780,801	\$242,800
Genome British Columbia	Health	Hieter, Philip	The University of British Columbia	Research Network: Expanding Collaboration between Basic and Clinician Scientists in Functional Studies of Novel Rare Diseases	\$1,679,500	\$560,000
Genome British Columbia	Health	Pimstone, Simon Krajden, Mel Penninger, Josef Bubela, Tania	The University of British Columbia British Columbia Center for Disease Control Simon Fraser University	SARS-CoV-2 Study for Eased Restrictions in British Columbia (SAFER BC)	\$1,215,596	\$237,500
NATIONAL AND INTERNATIONAL INITIATIVES						
Génome Québec	Health	Knoppers, Bartha Maria	McGill University	Can-SHARE Connect (2019-2020): Supporting the Regulatory and Ethics Work Stream	\$500,000	\$166,667
Ontario Genomics	Health	Boycott, Kym Sommerville, Martin	Children's Hospital of Eastern Ontario Research Institute	Defining a Canadian Data Solution that will Deliver Precision Health for Rare Genetic Disease	\$950,000	\$950,000
Génome Québec	Health	Knoppers, Bartha Maria	McGill University	Canadian Genomics Partnership for Rare Disease - The Regulatory and Ethics Toolbox	\$329,715	\$244,715
Ontario Genomics	Health	Goodhand, Peter Joly, Yann	Ontario Institute for Cancer Research	Supporting Canadian Leadership in International Genomic Data Sharing Through the Global Alliance for Genomics and Health (GA4GH)	\$2,859,000	\$800,000
Genome Alberta	Health	TallBear, Kim Kolopenuk, Jessica	University of Alberta	Summer Internship for Indigenous Peoples in Genomics (SING) Canada	\$240,000	\$240,000
Ontario Genomics	Health	Brazas, Michelle Stein, Lincoln Bourque, Guillaume Hsiao, William	Ontario Institute for Cancer Research	Canadian Bioinformatics Workshop	\$537,860	\$247,059
Genome Alberta	Health	Zovolis, Athanasios	University of Lethbridge	BioNet Alberta	\$2,950,000	\$950,000
Genome British Columbia	Health	Bryan, Stirling Austin, Jehannine	The University of British Columbia	Towards Clinical Implementation of Pharmacogenomics to Improve the Treatment of People with Depression in BC	\$1,449,460	\$483,154
Genome British Columbia	Health	Hoang, Linda Eloranta, Katie	The University of British Columbia BC Centre for Disease Control Canadian Food Inspection Agency	Unified Pathogen Control Onehealth Approach Specifically Targeting Vibrio (UPCOAST-V)	\$498,010	\$166,003
Genome British Columbia	Environment	Prystajec, Natalie Levet, Paul	The University of British Columbia BC Centre for Disease Control	Unified Pathogen Control One Health Approach Specifically Targeting Norovirus (UPCOAST-N)	\$499,990	\$166,663
Génome Québec	Health	Lette, Guillaume Gravel, Simon	Montréal Heart Institute McGill University	Whole-Genome Sequence Reference - Québec (GenoRef-Q) Initiative	\$3,402,974	\$1,000,000
Ontario Genomics	Agriculture	Baes, Christine Lohuis, Michael	University of Guelph Semex Alliance	Precision Fertility and Resiliency Phenotyping in Dairy Cattle	\$499,899	\$166,633
Ontario Genomics	Agriculture	Barta, John Brisbin, Jennifer	University of Guelph Ceva Animal Health Inc.	A Genomics-Derived Assay for Rapid Determination of Eimeria spp. Oocyst Viability: Improving Coccidiosis Management in the Poultry Industry	\$366,628	\$122,210
Ontario Genomics	Agriculture	Emery, Neil Tanaka, Kelly	Trent University NutriAg Ltd.	Metabolomic-Based Strain Selection of Microbial Bioinoculants which Alleviate Impacts of Drought Stress in Crop Production	\$358,250	\$119,417
Ontario Genomics	Agriculture	Eskandari, Milad Reid, Jeff	University of Guelph SeCan	Using New Emerging Genomic Tools to Improve Soybean Yield and Seed Compositions in Ontario	\$180,000	\$60,000

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Ontario Genomics	Agriculture	Lee, Elizabeth Cowan, Josh	University of Guelph Grain Farmers of Ontario	Application of Genomic-Based Technologies to Improve the Rate of Genetic Gain in Ontario Winter Wheat Breeding	\$400,000	\$133,333
Ontario Genomics	Agriculture	Lu, Ray Vanderbroek, Dave	University of Guelph Alliance Genetics Canada	Genomics Tools to Reduce Sow Stress and Improve Piglet Survival and Overall Performance	\$480,000	\$160,000
Ontario Genomics	Agriculture	Saxena, Praveen Yates, Barbara	University of Guelph Ferrero Canada	Introducing Cold Tolerance in Hazelnut	\$274,058	\$91,352
Ontario Genomics	Agriculture	van der Merwe, George Preiss, Richard	University of Guelph Escarpment Laboratories	Development of an Omics-Driven Beer Yeast Performance Database to Support the Ontario Craft Brewing Industry	\$366,165	\$122,055
Ontario Genomics	Health	Duggan, Ana	McMaster University	Jenner's Legacy: Uncovering the Origins and Dissemination of Smallpox Vaccines in the 19 <sup>th</sup> -20 <sup>th</sup> Centuries	\$48,030	\$24,015
Ontario Genomics	Energy	Gattinger, Monica	University of Ottawa	@Risk: Strengthening Canada's Ability to Manage Risk	\$195,166	\$97,583
Ontario Genomics	Health	Bell, Jennifer	University of Toronto	Personalized Genetic Drug Technologies and Medical Economies in Canada: Moral Experiment or Curative Renaissance?	\$199,462	\$99,731
Ontario Genomics	Health	Duggan, Ana	McMaster University	In Crypts and Cabinets: Uniting Ancient DNA and the History of Medicine to Re-examine the Emergence of Smallpox and the Advent of Vaccination	\$170,368	\$85,189

## LEADING-EDGE TECHNOLOGY

### CORE OPERATIONS SUPPORT FOR TECHNOLOGY PLATFORMS

Genome Alberta Genome British Columbia Génome Québec	All	Wishart, David Borchers, Christoph Li, Liang	University of Alberta McGill University	The Metabolomics Innovation Centre	\$8,846,948	\$8,846,948
Génome Québec	All	Lathrop, Mark Ragoussis, Ioannis Bourque, Guillaume Pastinen, Tomi	McGill University	McGill Applied Genomics Innovation Core	\$8,801,833	\$8,801,833
Génome Québec	All	Thibault, Pierre Tyers, Michael	Université de Montréal	Centre for Advanced Proteomic and Chemogenomic Analyses	\$3,388,479	\$3,388,479
Génome Québec Ontario Genomics	All	Bourque, Guillaume Brudno, Michael	McGill University The Hospital for Sick Children	Canadian Centre for Computational Genomics	\$6,890,786	\$6,890,786
Ontario Genomics	All	Awadalla, Philip Bartlett, John Pugh, Trevor Simpson, Jared Stein, Lincoln	Ontario Institute for Cancer Research	Canadian Data Integration Centre	\$6,136,306	\$6,136,306
Ontario Genomics	All	Wrana, Jeff Gingras, Anne-Claude	Lunenfeld-Tanenbaum Research Institute Sinai Health System	Network Biology Collaborative Centre	\$4,830,413	\$4,830,413
Ontario Genomics Génome Québec	All	Justice, Monica Vidal, Sylvia	The Hospital for Sick Children McGill University	The Centre for Phenogenomics	\$6,046,189	\$6,046,189

### BIOINFORMATICS AND COMPUTATIONAL BIOLOGY

Genome British Columbia	Health	Borchers, Christoph Mohammed, Yassene	University of Victoria	Proteogenomics-Improved and -Guided Quantification Pipeline (PIGQpipe): Targeted Proteomics with Internal Proteogeno-typic Peptide Standards to Quantify Variants Identified by Proteogenomic Experiments	\$556,472	\$273,860
Genome British Columbia	Environment	Hallam, Steven	The University of British Columbia	Global Scale Metabolic Pathway Reconstruction from Environmental Genomes	\$1,028,699	\$499,962
Genome British Columbia	Agriculture	Hsiao, William Van Domselaar, Gary	The University of British Columbia Public Health Agency of Canada	Bioinformatics Tools to Enable Federated, Real Time Genomic Epidemiology Data Sharing and Analysis in a One Health Framework	\$1,164,488	\$500,000
Genome British Columbia	Health	Joy, Jeffrey B. Montaner, Julio S.G.	The University of British Columbia	Development and Implementation of Bioinformatics Tools for HIV and HCV Phylogenetic Monitoring Platforms	\$1,249,397	\$499,992

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Genome British Columbia	Health	Libbrecht, Maxwell Chindelevitch, Leonid Shapiro, Jesse	Simon Fraser University McGill University	Machine Learning Methods to Predict Drug Resistance in Pathogenic Bacteria	\$1,000,000	\$499,886
Génome Québec	Health	Blanchette, Mathieu Majewski, Jacek Waldispühl, Jérôme	McGill University	Bioinformatics Tools for Integrative 3D Epigenomics	\$1,122,405	\$500,000
Génome Québec	Health	Bourque, Guillaume Joly, Yann	McGill University	Epigenomics Secure Data Sharing Platform for Integrative Analyses (EpiShare)	\$1,000,000	\$500,000
Génome Québec	Agriculture	Butler, Gregory	Concordia University	TooT Suite: Predication and Classification of Membrane Transport Proteins	\$600,000	\$300,000
Génome Québec	Health	Greenwood, Celia Oualkacha, Karim	Lady Davis Institute for Medical Research Université du Québec à Montréal	Precision Medicine in Cellular Epigenomics	\$660,512	\$317,220
Génome Québec	Health	Najmanovich, Rafael	Université de Montréal	Next-Generation Molecular Docking Leveraging Artificial Intelligence Techniques to Understand Large-Scale Ligand Binding Data Sets	\$500,000	\$250,000
Génome Québec	Environment	Xia, Jianguo Basu, Niladri	McGill University	Development and Validation of a Web-Based Platform for Environmental Omics and Toxicology	\$1,047,507	\$500,000
Génome Québec	Health	Xia, Jianguo Bourque, Guillaume Jacques, Pierre-Etienne	McGill University Université de Sherbrooke	An Integrative Platform for Metabolomics and Systems Biology	\$1,094,607	\$500,000
Ontario Genomics	Environment	Adamowicz, Sarah Hébert, Paul	University of Guelph	Extracting Signal from Noise: Big Biodiversity Analysis from High-Throughput Sequence Data	\$482,070	\$250,000
Ontario Genomics	Health	Boone, Charles Myers, Chad L.	The University of Toronto University of Minnesota	BridGE-SGA: A Novel Computational Platform to Discover Genetic Interactions Underlying Human Disease	\$990,910	\$494,552
Ontario Genomics	Health	Gingras, Anne-Claude Rost, Hannes	Lunenfeld-Tanenbaum Research Institute The University of Toronto	Computational Tools for Data-Independent Acquisition (DIA) for Quantitative Proteomics and Metabolomics	\$1,000,000	\$500,000
Ontario Genomics	Health	Haibe-Kains, Benjamin	University Health Network	SYNERGx: A Computational Framework for Drug Combination Synergy Prediction	\$972,700	\$486,336
Ontario Genomics	Health	Ma, Bin Moran, Michael	University of Waterloo Hospital for Sick Children	Software for Peptide Identification and Quantification from Large Mass Spectrometry Data using Data Independent Acquisition	\$925,987	\$462,998
Ontario Genomics	Forestry	Provart, Nicholas Bohlmann, Joerg	The University of Toronto The University of British Columbia	From ePlants to eEcosystems: New Frameworks and Tools for Sharing, Accessing, Exploring and Integrating 'Omic Data from Plants	\$999,999	\$499,999
Ontario Genomics	Health	Pugh, Trevor Brudno, Michael	Princess Margaret Cancer Centre Hospital for Sick Children	CReSCENT: Cancer Single Cell Expression Toolkit	\$917,861	\$499,900
Ontario Genomics	Health	Stein, Lincoln Fiume, Mark	Ontario Institute for Cancer Research DNASTack	Dockstore 2.0: Enhancing a Community Platform for Sharing Cloud-Agnostic Research Tools	\$809,249	\$437,610
DISRUPTIVE INNOVATION IN GENOMICS						
Ontario Genomics	Health	Figeys, Daniel Stinzi, Alain	University of Ottawa	RapidAIM: A Technology to Rapidly Assess the Effects of Compounds on Individual Microbiomes	\$2,888,563	\$757,358
Ontario Genomics	Health	Stagljär, Igor	The University of Toronto	Interactome Mapping of Disease-Related Proteins Using Split Intein-Mediated Protein Ligation (SIMPL)	\$2,223,117	\$741,039
Ontario Genomics	Health	Wheeler, Aaron Kolomietz, Elena Chitayat, David	The University of Toronto Sinai Health Systems	Development of a Digital Microfluidic Platform to Identify and Target Single Cells from a Heterogeneous Cell Population for lysis in an Ultra-Low Volume for Non-Invasive Prenatal Diagnosis	\$3,002,970	\$1,000,000



## TRANSLATION

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
<b>GENOMIC APPLICATIONS PARTNERSHIP PROGRAM</b>						
Génome Québec	Agriculture	George, Saji Samsatly, Jamil	McGill University Biosun Products Inc.	Nano-Enabled Biostimulant for Sustainable Agriculture: Optimizing Scale-Up Parameters through Genomic Approaches for Commercialization	\$916,787	\$300,238
Ontario Genomics	Health	Sadikovic, Bekim Porecha, Rishi	Lawson Health Research Institute/ Western University Illumina	EpiSign: Health System Impact Assessment and Expanding Clinical Utilization of Epi/Genomic Testing in Rare Diseases and Beyond	\$7,449,843	\$1,999,978
Ontario Genomics	Health	Haibe-Kains, Benjamin Pugh, Trevor Dancey, Janet	Princess Margaret Cancer Center - University Health Network Canadian Cancer Clinical Trials Network (3CTN)	Improving Patient Matching to Therapy (PMATCH): Digital Linkage of Preclinical Data to Guide Precision Oncology	\$1,800,000	\$600,000
Génome Québec	Health	Sauvageau, Guy Marinier, Anne	Institut de recherche en immunologie et en cancérologie Université de Montréal RejuvenRX	Development of a Novel Cyclin K Degradar of High-Risk AML Patients and Associated Genomic Features	\$6,000,000	\$2,000,000
Génome Québec	Agriculture	Robert, Claude Cameron, Johanne	Université Laval Société des éleveurs de moutons de race pure du Québec	Developing the Canadian Sheep Production Using Genomics	\$2,140,769	\$695,750
Génome Québec	Health	Hamet, Pavel Tremblay, Johanne	Université de Montréal OPTITHERA	Predict to Prevent: A Novel Genomic-Derived Score to Improve the Prognostic of T2 Diabetes Patients at High Risk of Complications	\$12,827,735	\$2,000,000
Genome British Columbia	Health	Prystajecky, Natalie McVea, David Knox, Natalie Henry, Bonnie	The University of British Columbia British Columbia Centre for Disease Control National Microbiology Laboratory, PHAC BC Ministry of Health	Surveillance Alert for Fast Epidemiology Genomics and Unified Agile Response to Disease (SAFEGUARD) Against Respiratory Viruses Using Wastewater Surveillance	\$6,056,973	\$2,000,000
Genome Atlantic	Fisheries	Filgueira, Ramon Hori, Tiago	Dalhousie University Atlantic Aqua Farms Ltd.	Triploid Mussel Genomics Program	\$3,424,281	\$1,113,869
Ontario Genomics	Health	Awadalla, Phillip McLaughlin, John Dummer, Trevor Hartman, Anne-Renee	Ontario Institute for Cancer Research Canadian Partnership for Tomorrow's Health (CanPath) Adela	Enabling Personalized Genomics in Health with the CanPath Data Safe Haven	\$8,332,826	\$1,999,998
Genome Prairie	Health	Alexander, John Christianson, Sara Reimer, Aleisha	University of Manitoba National Microbiology Laboratory, PHAC	Development and Clinical Implementation of an Omics Assay for the Diagnosis and Treatment of Helicobacter Pylori	\$1,655,505	\$400,152
Genome Prairie	Health	DeCoteau, John Kinloch, Marilyn	University of Saskatchewan Saskatchewan Health Authority	Clinical Implementation of Oncogenomic Testing and Synoptic Reporting for Improved Ovarian Cancer Patient Care in Saskatchewan	\$3,601,782	\$1,101,792
Genome British Columbia	Health	Jones, Steven Lansdorp, Peter Schrader, Kasmintan	The University of British Columbia BC Cancer	Parent-Of-Origin-Aware Genomic Analysis	\$6,040,300	\$1,999,940
Genome British Columbia	Health	Friedman, Jan Ivany, Craig	The University of British Columbia Provincial Health Services Authority	RapidOmics 2.0: Long-read Genome Sequencing for Urgent Genetic Disease Diagnosis	\$3,583,291	\$1,194,367
Ontario Genomics	Agriculture	Grbic, Vojislava Narva, Ken Coristine, Aaron	University of Western Ontario GreenLight Biosciences, Inc. Ontario Greenhouse Vegetable Growers	Biopesticide with New Modes of Action for Control of Highly Polyphagous Mite Agricultural Pests	\$4,087,687	\$1,362,437
Genome Alberta	Agriculture	Santamaria, Pere Cowan, Jord	University of Calgary Parvus Therapeutics	Transcriptional and Epigenetic Events Underpinning Navacim-Induced TR1 Cell Formation and Expansion	\$2,880,000	\$960,000
Génome Québec	Agriculture	Basu, Niladri Dalton, Rebecca	McGill University Environment and Climate Change Canada	Validation of the Use of the EcoToxChip Test System for Regulatory Decision Making	\$4,677,943	\$1,483,071

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Génome Québec	Agriculture	Landry, Christian Dufresne, Phillippe	Université Laval Le Laboratoire de santé publique du Québec (LSPQ - INSPQ)	Genomics Tools for the Prediction of Antifungal Resistance in Clinical Samples	\$3,360,546	\$786,030
Génome Québec	Agriculture	Comte, Jerome Levesque, Roger Verreault, Daniel	Université Laval Ministère de l'Environnement et de la Lutte contre les changements climatiques, Québec	RosHAB: Rapid on-site Detection of Harmful Algal Blooms	\$5,400,000	\$1,800,000
Genome Alberta	Health	Hubert, Casey Alexander, Alex	University of Calgary Alberta Health	Genomic Testing of Wastewater to Promote Public Health and Safeguard Economic Performance	\$6,000,001	\$1,999,998
Génome Québec	Health	Borchers, Christoph Zahedi, Renée	McGill University MRM Proteomics	MutaQuant: A Powerful Proteogenomic Phenotyping Tool for Precision Medicine	\$3,029,985	\$1,008,522
Genome Prairie	Agriculture	Adams, Gregg Shury, Todd	University of Saskatchewan Parks Canada	Bison Integrated Genomics (BIG)	\$5,096,909	\$1,664,383
Génome Québec	Forestry	Bousquet, Jean Lenz, Patrick	Université Laval Natural Resources Canada	FastTRAC2: Fast Tests for Rating and Amelioration of Conifers 2	\$6,143,852	\$2,000,000
Génome Québec	Agriculture	Pilote, Régis Azar, Christian	Agrinova Sollio Groupe Coopératif	Genomics of Milling Oat Breeding and Selection	\$1,823,860	\$585,346
Ontario Genomics	Health	Hawkins, Cynthia Tabori, Uri Pollett, Aaron Somers, Gino	The Hospital for Sick Children Mount Sinai Hospital	Lowpass Genomic Instability Characterization as a Comprehensive Cancer and Germline Diagnostic Assay	\$2,774,310	\$899,998
Genome Atlantic	Fisheries	Fast, Mark Frisch, Kathleen Hewison, Tim	University of Prince Edward Island Cermaq Canada Grieg Seafood	Complex Gill Disease Initiative (CGDI)	\$4,690,770	\$1,537,846
Genome Prairie	Health	Rockman-Greenberg, Cheryl Topp, Adam	University of Manitoba Shared Health	Canadian Prairie Metabolic Network	\$6,068,618	\$1,996,716
Génome Québec	Agriculture	Belzile, François Cowan, Josh	Université Laval Canadian Field Crop Research Alliance Grain Farmers of Ontario	Development and Implementation of a Toolkit for Genomics-Assisted Breeding in Soybean	\$7,001,050	\$2,000,000
Ontario Genomics	Health	Liu, Peter Ziegler, André	University of Ottawa Roche Diagnostics International Ltd.	Cardiovascular Biomarker Translation 2 (CBT2) – Atrial Fibrillation	\$5,955,141	\$1,983,487
Genome Atlantic	Fisheries	Garber, Amber Guest, Dean	Huntsman Marine Science Centre Mowi Canada East	Advancing Commercial Performance of North America Origin Atlantic Salmon through Integration of Genomic Selection	\$4,679,944	\$1,398,095
Ontario Genomics	Health	Bartlett, John Sadis, Seth	Ontario Institute for Cancer Research Thermo Fisher Scientific	Development of an Epigenomic Profiling Tool to Facilitate Precision Medicine in Early Breast Cancer	\$2,400,000	\$800,001
Ontario Genomics	Environment	Ensminger, Ingo Isabel, Nathalie	The University of Toronto Natural Resources Canada	Fast Track Diagnosis of Stress, Disease, Phenology and Growth - Drone-Based High-Throughput Field Phenotyping for Genome Assisted Tree Breeding and Selection (FastPheno)	\$4,744,502	\$1,581,501
Ontario Genomics	Health	McPherson, Peter Raina, Chetan	McGill University YCharOS Inc.	Antibody Characterization for Open Science – Towards Characterized Antibodies for the Human Proteome	\$3,979,175	\$959,982
Genome British Columbia	Agriculture	Poojari, Sudarsana Zhang, Xuekui Rott, Mike Schenck, Bill	Brock University University of Victoria Canadian Food Inspection Agency Canadian Grapevine Certification Network	CLEAn pAnt extractioN Sequencing Diagnostics (CLEANSED) for Clean Grapevines in Canada	\$6,228,081	\$2,000,000
Genome British Columbia	Agriculture	Rieseberg, Lorne Baute, Greg	The University of British Columbia	Fast-Track Breeding of Powdery Mildew-Resistant Cannabis	\$4,265,446	\$1,421,673
Génome Québec	Agriculture	Bélanger, Richard Vivancos, Julien	Université Laval Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec	Development and Validation of a Genomic-Based Diagnostic Tool of the Virulence Profile of Phytophthora Sojae, a Major Pathogen of Soybean	\$3,259,878	\$956,081

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Génome Québec	Environment	Sunday, Jennifer Rubidge, Emily Stanley, Ryan	McGill University Fisheries and Oceans Canada	Optimizing the eDNA Approach to Monitor Biodiversity in Canada's Marine Protected Areas	\$757,409	\$242,100
Genome Atlantic	Health	Bedard, Karen Vandersteen, Anthony Brock, Jo Ann Dyack, Sarah	Dalhousie University IWK Health Centre	Implementation of Clinical Exomes in a Pre- and Peri-Natal Setting	\$4,758,489	\$1,580,695
Génome Québec	Agriculture	Martin, Vincent Pouliot, Michel	Concordia University Agropur Cooperative	Bioprocess Development for Lactose Valorisation	\$1,950,000	\$650,000
Ontario Genomics	Environment	Wilson, Paul Roberts, Mary Jane	Trent University Environment and Climate Change Canada	Caribou Genomics: A National Non-Invasive Monitoring Approach for an Iconic Model Species-At-Risk	\$4,631,620	\$1,354,800
Ontario Genomics Génome Québec	Health	Goodridge, Lawrence Levesque, Roger Landgraff, Chrystal	University of Guelph Université Laval Public Health Agency of Canada	Stopping Enteric Illnesses Early (Sentinel)	\$6,490,662	\$1,907,690
Genome Alberta	Health	Bernier, François O'Hara, Carolyn	University of Calgary Alberta Precision Laboratories	TIGer: Translational Implementation of Genomics for Rare diseases	\$6,089,492	\$2,000,000
Génome Québec	Health	Gilbert, Lucy Rouleau, Guy	McGill University OPTILAB - McGill University Health Centre	Detecting Ovarian and Endometrial Cancer Early Using Genomics (DOvEEgene)	\$6,241,573	\$2,000,000
Ontario Genomics	Energy	Rehmann, Lars Paik, Nak	University of Western Ontario World Energy Hamilton	Strain Development for Butanol Process Addition to Existing Biodiesel Plants	\$796,745	\$265,499
Genome British Columbia	Health	Lehman, Anna Ivany, Craig	The University of British Columbia Provincial Health Services Authority	Implementation of Diagnostic Whole Genome Sequencing for Rare Diseases in British Columbia	\$8,124,794	\$1,999,086
Ontario Genomics	Health	Sadikovic, Bekim Kadour, Mike	Lawson Health Research Institute/ Western University London Health Sciences Centre	Beyond Genomics: Assessing the Improvement in Diagnosis of Rare Diseases using Clinical Epigenomics in Canada (EpiSign-CAN)	\$4,787,447	\$1,588,260
Génome Québec	Health	Michaud, Jacques Ouellet, Denis	Centre Hospitalier Universitaire Sainte-Justine Ministère de la Santé et des Services sociaux	Rapid Whole-Genome Sequencing in Acute Care Neonates and Infants	\$6,165,469	\$2,000,000
Ontario Genomics	Health	Cowen, Leah Jaikaran, Dominic	The University of Toronto Bright Angel Therapeutics	Targeting Fungal Stress Responses to Provide First-in-Class Treatment for Drug Resistant Fungal Pathogens	\$5,516,034	\$1,986,029
Génome Québec	Health	Waldispühl, Jérôme Szantner, Attila	McGill University Massively Multiplayer Online Science	Crowdsourcing Sequence Alignments in a AAA Game for Microbiome Research	\$2,953,319	\$803,250
Ontario Genomics	Health	Boycott, Kym Somerville, Martin Sarta, Neeta	Children's Hospital of Eastern Ontario Research Institute The Hospital for Sick Children Ontario Ministry of Health	Optimization and Implementation of a Clinical Genome-Wide Sequencing Service for Rare Disease Diagnosis in Ontario	\$6,000,000	\$2,000,000
Genome Atlantic Genome Alberta	Energy	Hubert, Casey Ventura, Todd MacDonald, Adam	University of Calgary Saint Mary's University Nova Scotia Department of Energy	Validation and Integration of Genomics Solutions for Offshore Oil Exploration in Nova Scotia and Beyond	\$6,479,444	\$1,999,864
Génome Québec	Agriculture	Labrie, Steve Fraud, Sebastian	Université Laval General Mills	Genomic-Based Approach to Optimize the Development of Texturizing Bacterial Strains in Yogurt	\$1,170,675	\$390,225
Ontario Genomics	Health	Moffat, Jason Singh, Sheila	The University of Toronto Century Therapeutics	Systematic Evaluation and Optimization of Immune-Targeting Modalities for GBM and Brain Metastases	\$4,483,118	\$1,345,100
Genome Atlantic	Fisheries	Bernatchez, Lewis Mallet, André	Université Laval L'Étang Ruisseau Bar Ltd	Genomics for Developing the First Canadian Production Ready Strain of Selectively Bred Eastern Oyster	\$3,806,291	\$1,249,924
Génome Québec	Health	Borchers, Christoph Spatz, Alan Leduc, Claude	Lady Davis Institute Jewish General Hospital MRM Proteomics Inc.	Developing the Next Generation PD-L1 Assays Using Precision Mass Spectrometry	\$1,449,026	\$478,138



CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
Ontario Genomics	Environment	Edwards, Elizabeth A. Dworatzek, Sandra	The University of Toronto SIREM	Field Validation of Technologies for Anaerobic Benzene and Alkylbenzene Bioremediation	\$2,752,161	\$926,160
Ontario Genomics	Health	Hawkins, Cynthia Ferree, Sean	The Hospital for Sick Children Nanosting Technologies	NanoString nCounter Vantage 3D Platform-Based Complementary Diagnostic Tests for Precision Medicine in Pediatric Cancers	\$4,045,291	\$1,300,000
Ontario Genomics	Environment	Hajibabaei, Mehrdad Hendriks, Elizabeth	University of Guelph World Wildlife Fund Canada	Assessing Freshwater Health Through Community Based Environmental DNA Metabarcoding	\$2,608,784	\$866,852
Ontario Genomics	Health	Kelley, Shana Ambler, Natalie	The University of Toronto Charlotte Products Ltd.	Devices for Detection and Identification of Surface Microbial Contamination in High-Risk Facilities	\$4,469,365	\$1,485,636
Ontario Genomics	Agriculture	Mallard, Bonnie Lohuis, Michael	University of Guelph The Semex Alliance	Translating High Immune Response (HIRTM) Genomics to Improve Beef Cattle Health and Welfare	\$1,617,164	\$538,601
Génome Québec	Environment	Robert, Claude Rioux, Réjean	Université Laval Protection de la faune du Québec	Use of Genomics to Manage and Protect Caribou Populations	\$3,043,190	\$1,011,323
Ontario Genomics	Agriculture	Guttman, David Paulter, Michael	The University of Toronto Vineland Research and Innovation Centre	Broad-Range Disease Resistance in Greenhouse Vegetables	\$2,008,200	\$668,291
Ontario Genomics	Health	Surette, Michael Magarvey, Nathan Haigh, Andrew	McMaster University Adapsyn Bioscience Inc.	Applying the Adapsyn Genomics Platform to the Identification, Isolation, and Characterization of Immune Modulators from the Human Microbiome	\$6,034,102	\$1,990,459
Ontario Genomics	Health	Lye, Stephen Liu, Xin	Lenenfeld-Tanenbaum Research Institute BGI-Research	Leveraging Leukocytes as Endogenous Biosensors to Create Novel Diagnostics for Preterm Birth	\$4,565,893	\$1,403,307
Ontario Genomics	Environment	Mahadevan, Radhakrishnan Dugar, Deepak	The University of Toronto Visolis Inc.	Genomics Driven Engineering of Hosts for Bio-Nylon	\$5,700,000	\$1,900,000
Ontario Genomics	Agriculture	Baes, Christine Wood, Ben	University of Guelph Hybrid Turkeys	Application of Genomic Selection in Turkeys for Health, Welfare, Efficiency and Production Traits	\$6,039,988	\$1,999,422
Ontario Genomics	Agriculture	Pauls, Peter Oufattole, Mohammed	University of Guelph Benson Hill Biosystems	Increasing Yield in Canola Using Genomic Solutions	\$3,682,897	\$1,147,374
Ontario Genomics	Health	Stewart, David Sekhon, Harmon	Ottawa Hospital University of Ottawa Eastern Ontario Regional Laboratory Association	Standardization of Molecular Diagnostic Testing for Non-small Lung Cancer	\$2,054,798	\$595,197

## GENOMICS IN SOCIETY INTERDISCIPLINARY RESEARCH TEAMS

Genome British Columbia Ontario Genomics	Agriculture	Regier, Dean A. Bubela, Tania Hanna, Timothy	BC Cancer Research Simon Fraser University Queen's University	Canadian Network for Learning Healthcare Systems and Cost Effective 'Omics Innovation	\$2,628,837	\$1,000,000
Ontario Genomics Genome British Columbia	Agriculture	von Massow, Michael Weary, Dan	University of Guelph The University of British Columbia	Barriers and Opportunities for Commercialization of Gene-Edited Beef and Dairy Products	\$1,424,374	\$711,354
Genome Alberta Ontario Genomics	Health	Murray, Maribeth S. Pulsifer, Peter	University of Calgary Carleton University	The Role of Genomics in Fostering and Supporting Arctic Biodiversity: Implications for Wildlife Management, Policy and Indigenous Food Security	\$1,879,203	\$932,330

CENTRE(S)	SECTOR	LEADER(S)	ORGANIZATION(S)	TITLE	TOTAL FUNDING	GENOME CANADA CONTRIBUTION
<b>CLIMATE-SMART AGRICULTURE AND FOOD SYSTEMS INITIATIVE</b>						
Genome Alberta	Agriculture	Fitzsimmons, Carolyn Cahill, James	University of Alberta Agriculture and Agri-Food Canada University of Saskatchewan	Combining Omic Technology and Grassland Management to Enhance Soil Carbon Sequestration and Reduce Greenhouse Emissions	\$6,230,801	\$2,998,199
Genome Prairie	Agriculture	Bennett, Jonathan Asselin, Sean	University of Saskatchewan Agriculture and Agri-Food Canada - Swift Current University of Manitoba	Grassland Genomics for Green House Gas Mitigation (GG4GHG)	\$5,953,556	\$2,826,148
Genome Prairie	Agriculture	Bett, Kristin Pozniak, Curtis	University of Saskatchewan Grain Commission	ACTIVATing Genomics to Accelerate Climate-Smart Cultivars	\$6,000,000	\$3,000,000
Genome Prairie	Agriculture	Oresnik, Ivan diCenzo, George	University of Manitoba Queen's University	Bio-inoculants for the Promotion of Nutrient Use Efficiency and Crop Resiliency in Canadian Agriculture	\$6,445,071	\$3,000,000

# AUDITORS REPORT AND AUDITED FINANCIAL STATEMENTS

Financial Statements of

**GENOME CANADA**

For the year ended March 31, 2024

# GENOME CANADA

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Year ended March 31, 2024

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**KPMG LLP**

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## INDEPENDENT AUDITOR'S REPORT

To the Directors of Genome Canada

### ***Opinion***

We have audited the financial statements of Genome Canada (the "Corporation"), which comprise:

- the statements of financial position as at March 31, 2024
- the statements of operations and changes in net assets for the year then ended
- the statements of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Corporation as at March 31, 2024, and its results of operations and changes in net assets, and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

### ***Basis for Opinion***

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditor's Responsibilities for the Audit of the Financial Statements***" section of our auditor's report.

We are independent of the Corporation in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KPMG LLP, an Ontario limited liability partnership and member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. KPMG Canada provides services to KPMG LLP.



### ***Responsibilities of Management and Those Charged with Governance for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Corporation's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Corporation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Corporation's financial reporting process.

### ***Auditor's Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control.



Page 3

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Corporation to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

A handwritten signature in black ink that reads 'KPMG LLP'. The signature is written in a cursive, stylized font and is underlined with a single horizontal stroke.

Chartered Professional Accountants, Licensed Public Accountants  
Ottawa, Canada  
June 21, 2024

# GENOME CANADA

## Statement of Financial Position

March 31, 2024, with comparative information for 2023  
(in thousands of dollars)

	2024	2023
<b>Assets</b>		
Current assets:		
Cash	\$ 3,843	\$ 855
Short-term investments (note 3)	40,696	37,101
Other receivables	418	343
Prepaid expenses	344	352
	45,301	38,651
Capital assets (note 4)	154	15
	<b>\$ 45,455</b>	<b>\$ 38,666</b>

## Liabilities and Net Assets

Current liabilities:		
Accounts payable and accrued liabilities (note 5)	\$ 856	\$ 954
Deferred contributions - research projects (note 6(a)i)	43,616	36,337
	44,472	37,291
Deferred lease inducements (note 7)	19	160
Deferred contributions (note 6)		
Deferred contributions - internally restricted	810	1,200
Deferred contributions related to capital assets	154	15
	964	1,215
Commitments (note 10)		
	<b>\$ 45,455</b>	<b>\$ 38,666</b>

See accompanying notes to financial statements.

On behalf of the Board:

DocuSigned by:  
  
A3C25C22F78A466...  
Rob Annan, PhD  
President and CEO

DocuSigned by:  
  
AF151B9EF5754C6...  
Elizabeth Douville, PhD, ICD.D  
Board Chair



# GENOME CANADA

## Statement of Operations and Changes in Net Assets

Year ended March 31, 2024, with comparative information for 2023  
(in thousands of dollars)

	2024	2023
Revenue:		
Research projects and operating expenditures	\$ 53,394	\$ 62,958
Research projects - CanCOGeN (note 6(a)ii)	–	4,432
Sector strategy development	–	213
Amortization of deferred contributions related to capital assets (note 6(b))	23	4
	53,417	67,607
Expenses:		
Projects and Genome Centres	46,499	56,073
Corporate services	2,605	1,924
Program management	2,281	2,366
Strategy, development and external relations	1,298	1,683
Office of the President	711	912
Amortization of capital assets	23	4
Projects and Genome Centres – CanCOGeN	–	4,303
Sector strategy development	–	213
Program management - CanCOGeN	–	129
	53,417	67,607
Excess of revenue over expenses, being net assets, end of year	\$ –	\$ –

See accompanying notes to financial statements.

# GENOME CANADA

## Statement of Cash Flows

Year ended March 31, 2024, with comparative information for 2023  
(in thousands of dollars)

	2024	2023
Cash provided by (used in):		
Operating activities:		
Excess of revenue over expenses	\$ –	\$ –
Items not affecting cash:		
Amortization of capital assets	23	4
Amortization of deferred lease inducement	(141)	(5)
Deferred contributions – research projects and operating expenditures	(53,394)	(63,171)
Deferred contributions – CanCOGeN	–	(4,432)
Deferred contributions – internally restricted	(390)	–
Amortization of deferred contributions related to capital assets	(23)	(4)
Excluded from the increase in deferred contributions (note 9)	699	589
	(53,226)	(67,019)
Grants received from Government of Canada (note 6)	59,400	79,300
Changes in non-cash operating working capital items:		
Increase in other receivables	(76)	(205)
Decrease (increase) in prepaid expenses	9	(77)
Increase in accounts payable and accrued liabilities	(98)	(1,835)
	6,009	10,164
Investing activities:		
Increase in short-term investments	(3,595)	(20,571)
Interest received on investments	792	475
Portfolio investment management	(56)	(55)
Purchase of capital assets	(162)	–
	(3,021)	(20,151)
Net change in cash	2,988	(9,987)
Cash, beginning of year	855	10,842
Cash, end of year	\$ 3,843	\$ 855

See accompanying notes to financial statements.

# GENOME CANADA

Notes to Financial Statements

Year ended March 31, 2024  
(in thousands of dollars)

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## 1. Description of the organization:

Genome Canada (the "Corporation") was incorporated on February 8, 2000, under the Canada Corporations Act and continued on December 11, 2012. The Corporation is a not-for-profit organization and has the following objectives:

- (a) The development and establishment of a co-ordinated strategy for genomics research to enable Canada to become a world leader in areas such as health, agriculture, environment, forestry, fisheries, mining and energy;
- (b) The provision of leading-edge technology to researchers in all genomics-related fields through regional Genome Centres across Canada, of which there are currently six, one each in British Columbia, Alberta, the Prairies, Ontario, Quebec and the Atlantic;
- (c) The support of large-scale projects of strategic importance to Canada by bringing together industry, government, universities, research hospitals and the public;
- (d) The assumption of leadership in the area of ethical, environmental, economic, legal, social and other issues related to genomics research, and the communication of the relative risks, rewards and successes of genomics to the Canadian public; and
- (e) The encouragement of investment by others in the field of genomics research.

## 2. Significant accounting policies:

The financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations and include the following significant accounting policies:

### (a) Revenue recognition:

The Corporation follows the deferral method of accounting for contribution for not-for-profit organizations received from the Government of Canada.

Externally restricted contributions and related investment income are recognized as revenue in the year in which the underlying expenses are incurred. A receivable is recognized if the amount to be received can be reasonably estimated and collection is reasonably assured.

Externally restricted contributions for the purchase of capital assets are deferred and amortized to revenue on a declining balance basis at a rate corresponding to the amortization rate for the related capital assets.

### (b) Investments:

Investments are recorded at fair value. Fair value is determined at quoted market prices. Sales and purchases of investments are recorded at the settlement date. Short-term investments can be easily converted to cash during the period. Transaction costs related to the acquisition of investments are expensed.

# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

## 2. Significant accounting policies (continued):

### (c) Capital assets:

Capital assets are stated at their net book value. Amortization is provided for using the declining balance method at the following annual rates:

Asset	Rate
Furniture, fixtures and office equipment	20%
Computers and software	50%

### (d) Financial instruments:

The Corporation records interest receivable, other receivables and accounts payable and accrued liabilities at amortized cost using the effective interest method of amortization.

### (e) Use of estimates:

The preparation of financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Accordingly, actual results could differ from these estimates. The most significant estimates used in the preparation of the financial statements include the fair value of investments and the amount of certain accrued liabilities. These estimates are reviewed annually and as adjustments become necessary, they are recorded in the financial statements in the year in which they become known.

### (f) Lease inducements

Lease inducements, consisting of free rent and improvement allowances granted to the Corporation for the leased offices, are amortized on a straight-line basis over the term of the lease or over the useful life of the purchased asset.



# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

## 3. Short-term investments:

	Cost	2024 Fair market value	Cost	2023 Fair market value
Government of Canada				
Treasury bills	\$ 31,385	\$ 31,489	\$ 10,859	\$ 10,952
Bank deposits/Bankers'				
Acceptance	1,488	1,493	2,736	3,080
Corporate bonds	—	—	9,154	9,265
Mutual funds	119	119	5,851	5,851
Provincial/Municipal Short-term				
bills and notes	5,092	5,106	5,936	5,964
Commercial paper	2,481	2,489	1,981	1,989
	\$ 40,565	\$ 40,696	\$ 36,517	\$ 37,101

The interest rates at the end of the year range from 0.00% to 0.00% (2023 - 1.91% to 4.40%) and mature at varying dates in 2025 (2023 - varying dates in 2024).

## 4. Capital assets:

	Cost	Accumulated amortization	2024 Net book value	2023 Net book value
Furniture, fixtures and				
office equipment	\$ 400	\$ 266	\$ 134	\$ 15
Computers and software	204	184	20	—
	\$ 604	\$ 450	\$ 154	\$ 15

Cost and accumulated amortization at March 31, 2023, amounted to \$442 and \$427, respectively.

## 5. Accounts payable and accrued liabilities:

Included in accounts payable and accrued liabilities are \$Nil (2023 - \$Nil) for goods and services tax/harmonized sales tax and payroll-related taxes due to government entities.

# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

## 6. Deferred contributions:

The Corporation receives contributions from the Government of Canada to be held, invested, administered and disbursed in accordance with the related funding agreement between the Corporation and the Government of Canada.

### (a) Deferred contributions - research projects:

The Corporation operates under three active Funding Agreements with the Government of Canada. As at March 31, 2024, Innovation, Science and Economic Development Canada had committed \$474,400 in contributions to the Corporation under these agreements, of which \$400,400 has been received as at March 31, 2024. The terms and conditions of these agreements call for remaining grants to be paid to the Corporation annually, subject to the appropriation by the Parliament, based on the estimated cash requirements for the year. During the year ended March 31, 2024, the Corporation received \$5,000 under the agreement dated May 19, 2017, \$19,000 under the agreement dated April 1, 2020 and \$35,400 under the agreement dated April 1, 2022.

#### i. Deferred contributions – research projects:

	2024	2023
Balance, beginning of year	\$ 36,337	\$ 19,199
Add: grants received	59,400	79,300
Add: investment income	1,435	1,009
Less: amount reflected in revenue	(53,394)	(63,171)
Less: amount reflected in capital	(162)	–
Balance, end of year	\$ 43,616	\$ 36,337

#### ii. Deferred contributions – CanCOGeN:

	2024	2023
Balance, beginning of year	\$ –	\$ 4,432
Add: grants received	–	–
Less: amounts reflected in revenue	–	(4,432)
Balance, end of year	\$ –	\$ –

# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

## 6. Deferred contributions (continued):

### (a) Deferred contributions - research projects (continued):

Expenses of future years:

Deferred contributions related to expenses of future years represent unspent externally restricted funding received to date, together with investment revenue earned, for the purpose of providing funds to eligible recipients and paying for operating and capital expenditures in future years.

### (b) Deferred contributions related to capital assets:

Deferred contributions related to capital assets represent restricted contributions with which capital assets were originally purchased.

The changes in the deferred contributions balance for the year are as follows:

	2024	2023
Balance, beginning of year	\$ 15	\$ 19
Add: investment in capital assets	162	—
Less: amounts amortized to revenue	(23)	(4)
Balance, end of year	\$ 154	\$ 15

### (c) Deferred contributions - internally restricted:

On March 21, 2019, the Board of Directors approved an internally restricted reserve from previously received deferred contributions of \$950. On March 31, 2021, the reserve was increased by \$250 to \$1,200 to take into account the increase in the payroll component of the reserve. The amount will be held to cover costs of a potential wind-down of the organization. Interest and investment income earned from these restricted amounts is recognized as income during the year it is earned and redistributed to the deferred contributions for future research project distribution. During the year ended March 31, 2024, the reserve was decreased to \$810.

# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

## 7. Deferred lease inducements:

The deferred lease inducements include the following amounts:

	2024		2023	
Leasehold improvement allowances	\$	–	\$	136
Free rent		19		24
Total deferred lease inducements	\$	19	\$	160

The leasehold improvement allowance remained unspent during the 2024 period and was therefore not amortized. The amortization of leasehold improvement allowances and free rent are \$136 and \$5, respectively (2023 - \$Nil and \$5, respectively).

## 8. Employee pension plan:

The Corporation maintains, for the benefit of most of its employees, a defined contribution pension plan. The cost of the plan is recorded in the statement of operations and changes in net assets as it is incurred. The charge for the year totals \$308 (2023 - \$268).

## 9. Supplemental cash flow information:

	2024		2023	
Gain on disposal of investments	\$	339	\$	3
Fair value adjustment		360		586
	\$	699	\$	589



# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

## 10. Commitments:

### (a) Committed funding:

The Corporation is committed to finance approved research projects, science and technology platforms and Genome Centre operations in accordance with established agreements. The payments committed are approximately as follows for future years.

2025	\$	61,235
2026		37,180
2027		13,022
2028		5,109
2029		1,567
	\$	118,113

### (b) Operating leases:

The Corporation leases its premises and equipment under long-term operating leases, which expire at various dates between 2025 and 2029. The minimum aggregate lease payments are approximately as follows:

2025	\$	272
2026		263
2027		260
2028		260
2029		21
	\$	1,076

# GENOME CANADA

Notes to Financial Statements (continued)

Year ended March 31, 2024  
(in thousands of dollars)

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## 11. Financial risk management:

The Corporation is subject to the following risks due to its financial instruments:

(a) Market risk:

Market risk is the risk that fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk, namely currency risk, interest rate risk and other price risk:

i. Currency risk:

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Corporation holds \$Nil (2023 - \$16) in foreign currency.

ii. Interest rate risk:

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in interest rates. The Corporation is exposed to interest rate risk with respect to its interest-bearing investments as disclosed in note 3 to the financial statements.

iii. Other price risk:

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. The fair value of investments is disclosed in note 3 to the financial statements.

(b) Liquidity risk:

Liquidity risk is the risk that the Corporation will be unable to fulfill its obligations associated with financial liabilities or to meet cash requirements on a timely basis or a reasonable cost. The Corporation manages its liquidity risk by monitoring its operating requirements. The Corporation prepares budgets and cash forecasts to ensure it has sufficient funds to fulfill its obligations.

(c) Credit risk:

Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a financial loss. The Corporation is exposed to credit risks with respect to its interest-bearing investments. The Corporation invests in government bonds to reduce the credit risk to an acceptable level.

The Corporation's financial risks have increased during the year due to rising interest rates, inflation, and fluctuations in market prices. Management believes that these financial risks are appropriately mitigated and do not pose significant risk to the Corporation's operations. There have been no significant changes in the policies, procedures and methods used to manage these risks in the year.

# ACKNOWLEDGEMENTS

Genome Canada gratefully acknowledges the support of the Government of Canada, and specifically Innovation, Science and Economic Development Canada (ISED), the lead investor in our challenge-driven genomics initiatives. This investment supports our focus on mobilizing Canada's genomics research, innovation, data and talent ecosystem on areas of strategic importance for Canada where genomics can promote a healthier population, a stronger economy and a more sustainable planet.

With funding from



In addition to the diverse project partners who participate in our research initiatives, we collaborate broadly across Canada's research and innovation ecosystem in program development, delivery and policy dialogue. We wish to acknowledge these strategic partners for their value-add collaboration last year. We are grateful for our ongoing engagement with the research, industry, public and community sectors at home and abroad.

adMare BioInnovations	Digital Technology Supercluster	National Research Council of Canada
Advancing and Evaluating the Societal Impact of Science (Netherlands)	DNASTack and COVID Cloud	Native Women's Association of Canada
Agriculture and Agri-Food Canada	Environment and Climate Change Canada	Natural Sciences and Engineering Research Council
Agri-Food Innovation Council	Federation for the Humanities and Social Sciences	Novo Nordisk Foundation (Denmark)
All of Us Research Program, National Institutes of Health (United States)	First Nations Information Governance Centre	NutriAg Ltd
Australian Genomics (Australia)	Fisheries and Oceans Canada	Office of the Chief Science Advisor and Youth Council
BIOTECCanada	Genomics England (United Kingdom)	Personalized Medicine Coalition (United States)
Canada Foundation for Innovation	Genomics Research and Development Initiative	Public Health Agency of Canada
Canadian Black Scientists Network	Global Affairs Canada	Public Policy Forum
Canadian Cancer Research Alliance	Global Alliance for Genomics and Health	Public Policy Projects (United Kingdom)
Canadian Chamber of Commerce	Global Biodata Coalition	Red Rabbit Learning Services Inc.
Canadian Drug Agency	Global Genomic Medicine Consortium	Summer internship for Indigenous peoples in Genomics Canada
Canadian Food Innovation Network	Health Canada	Social Sciences and Humanities Research Council
Canadian Institute for Advanced Research	Indigenous Works	Society for Canadian Women in Science and Technology
Canadian Institutes of Health Research and CIHR Institute for Genetics	Institute for Research on Public Policy	Speakers Bureau Canada
Canadian Organization for Rare Disorders	Institute on Governance	Stem Cell Network
Canadian Public Health Laboratory Network	International Development Research Centre	Terry Fox Research Institute
Canadian Science Policy Centre	Inuit Tapiriit Kanatami	The Conversation Canada
Canadian Water Network	KAIROS Canada	Woman Abuse Council of Toronto
CGen	Let's Talk Science	Wellcome Trust (United Kingdom)
Council of Yukon First Nations	Liberty Co	WomanACT
CoVaRR-Net	Mitacs	
CropLife Canada	National Human Genome Research Institute (United States)	
Digital Research Alliance of Canada	National Institutes of Health (United States)	
	National Microbiology Laboratory	





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