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FROM RESEARCH TO RESULTS

Annual Report
2024–2025

25YEARS GenomeBritishColumbia
Genomics positively impacts life, every day.

25 YEARS
OF GENOMICS
IN BRITISH
COLUMBIA

We acknowledge that Genome BC's office is located on the unceded traditional territories of the Coast Salish peoples, including the territories of the xʷməθkwəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish) Nations who have been stewards of the land since time immemorial. We are honoured to perform the important work of Genome BC on these lands.

25YEARS
GenomeBritishColumbia
Genomics positively impacts life, every day.

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FROM RESEARCH TO RESULTS: 25 YEARS OF GENOMICS IN BC

In British Columbia, the story of genomics is not just about scientific discovery; it's about the leap forward that happens when collaboration meets innovation and when science is applied to strengthen our health systems, environment and economy. For 25 years, Genome British Columbia (Genome BC) has brought together researchers, entrepreneurs, health leaders and policymakers to transform genomics from a promising science into a driving force for real world impact.

BECAUSE WE BUILT TRUST EARLY, WE NOW ACCELERATE PROGRESS.

From our earliest days, Genome BC has played a central role in establishing the province as a leader in genomic research. We co-invested in foundational projects that mapped the human genome and identified critical markers for disease, agriculture and biodiversity. These efforts built the knowledge base and institutional trust that now allow us to move with agility, connecting ideas to investment and discovery to application.

BECAUSE WE PARTNERED ACROSS SECTORS, WE NOW BUILD RESILIENCE.

Our strength lies in the diversity of our collaborations. By working with provincial and federal governments, academic institutions, industry and Indigenous communities, we help weave genomics into the fabric of BC's health, environmental and economic systems. Today, these connections are the reason genomic innovations can be rapidly mobilized to address complex challenges — from cancer care to climate change, from food security to pathogen surveillance.

BECAUSE WE BUILT AGILITY INTO OUR MODEL, WE NOW RESPOND IN REAL TIME.

Emerging crises, whether global pandemics, climate-driven health threats or urgent gaps in biodiversity data require strategic, responsive action. Genome BC's unique role in BC's research and innovation ecosystem allows us to convene cross sector partners, pivot resources and absorb early risk, enabling rapid responses to critical issues while highlighting where sustained investment is needed most.

BECAUSE WE INVESTED EARLY, BC COMPANIES NOW LEAD ON THE GLOBAL STAGE.

Genome BC has long supported not just research, but the conditions that allow research to have real world impact. That includes early stage funding for startups, capacity building in bioinformatics and infrastructure that supports responsible innovation. Companies such as AbCellera, Aspect Biosystems and Precision NanoSystems benefited from Genome BC's early support — two are now global leaders in biotech and one has been acquired by Danaher Corporation and integrated into Cytiva. Their trajectories show what's possible when bold ideas meet early investment and sustained partnership.

BECAUSE WE CATALYZE INNOVATION, WE'VE HELPED BUILD A THRIVING ECOSYSTEM.

Genome BC's work spans the entire innovation pipeline, from early discovery in labs to clinical implementation and from pilot projects in agriculture to environmental monitoring in remote communities. We don't just fund projects; we create the conditions for them to scale, succeed and grow. Our role as a neutral convener ensures the right people and ideas converge at the right time — accelerating adoption, amplifying impact and optimizing genomic benefits, people and end-users alike. Today, BC's life sciences sector is stronger because of this foundation, with genomics serving as a cornerstone of its continued growth.

BECAUSE WE PRIORITIZE INCLUSION, WE NOW SHAPE A MORE EQUITABLE FUTURE.

Innovation without inclusion is incomplete. That's why Genome BC has integrated equity, diversity and Indigenous engagement into our programs — from co-developing projects with Indigenous partners to supporting initiatives that address health disparities and ensure broader access to genomic tools. These principles aren't just add-ons — they are essential for building a life sciences ecosystem that reflects and serves the people of BC.

BECAUSE WE ALWAYS PLAN FOR TOMORROW, WE'RE READY FOR WHAT COMES NEXT.

Genomics is no longer the future — it's here. But its full potential will only be realized through sustained collaboration. As the demands on our healthcare, environment and food systems grow, so too must our collective readiness to respond. Genome BC will continue to be the connective tissue in BC's life sciences ecosystem — identifying opportunities, reducing silos and enabling innovation that benefits all British Columbians.

We've shown what's possible when partnerships take root. The next chapter will deepen those connections, scale impact and prepare our province for the future.

GENOMICS IN HEALTH:

FROM DISCOVERY TO DELIVERY

GENOMICS IS NO LONGER LIMITED TO THE LAB — IT'S TRANSFORMING HEALTH CARE DELIVERY IN BC. After decades of investment, research and partnership, genomics has fundamentally reshaped our understanding of human health and disease and is redefining how we treat and care for patients. It is producing tangible results across our health system as we expand the implementation of genomic innovations.

IN BC, GENOMIC MEDICINE IS NO LONGER EMERGING — IT'S TAKING ROOT IN EVERYDAY CLINICAL CARE. Genomics is driving more accurate diagnoses, targeted therapies and safer prescribing. What once took years of diagnostic uncertainty can now be resolved through a genetic test. Treatment plans can be informed by a patient's genomic profile, helping to prevent adverse drug reactions and reduce the need for trial-and-error prescribing. Genomic insights are also improving cancer care, from identifying inherited cancer risks to guiding personalized treatment. It also enables more proactive care, identifies individuals at higher risk for certain diseases, informs screening strategies, and supports earlier interventions. Genomics is helping to diagnose rare diseases and shaping how we approach chronic and inherited conditions. From the individual patient to the broader health system, the results are measurable and meaningful.

PROTECTING HEALTH AT THE POPULATION LEVEL MEANS SEEING THE FULL PICTURE, AND GENOMICS HELPS US DO THAT. It enables faster detection of infectious disease outbreaks, more effective antimicrobial resistance monitoring and smarter surveillance systems. This supports a broader approach to health aligned with the principles of One Health, which recognizes that human health is deeply interconnected with the health of animals and the environment. In BC, genomic tools are being applied to monitor these connections in ways that support health protection, food safety and environmental resilience.

REAL-WORLD IMPACT DEPENDS ON MORE THAN RESEARCH AND INNOVATION — IT REQUIRES LEARNING SYSTEMS, SUPPORT AND EQUITY. Yet for all its promises, implementing new genomic innovations into the healthcare system is not without its barriers. It calls for new infrastructure and workflows, clinical training, clear policy frameworks and robust data systems. Ensuring equitable access to these innovations, particularly for Indigenous and underserved populations, remains essential. Genome BC continues to support this work through inclusive funding practices, engagement frameworks and Indigenous led initiatives.

Through long term strategic investment and collaboration, BC's genomics ecosystem is turning discovery into delivery, driving innovation that is already producing results today, while laying the groundwork to meet the health challenges of tomorrow.

Explore the real world impact of genomics on precision health. This year, Genome BC's Genomics Forum showcased transformative research that is shaping the future of healthcare — improving diagnoses, enhancing treatments and driving better patient outcomes.

"Genomics is transforming health care, offering new ways to diagnose, treat and prevent diseases. By supporting Genome BC, we are helping to advance research to improve patient outcomes and make precision medicine more accessible to people across British Columbia. These efforts will contribute to faster diagnoses, more precise treatments and improved health care outcomes for patients."

The Honourable Josie Osborne,
Minister of Health, Province of British Columbia

SURVIVE AND THRIVE: GENOMICS PERSONALIZES CANCER CARE FOR KIDS

Led by Dr. Bruce Carleton, the GO-PGx project established a national precision medicine network with a single goal: to help children with cancer not only survive but also thrive. By integrating pharmacogenomic testing into routine care, the project enabled clinicians to tailor drug therapies to a child's genetic profile, improving outcomes and reducing harmful side effects.

GO-PGx also identified 26 new genetic variants linked to severe drug reactions and established one of the world's largest pediatric pharmacogenomic databases. Its legacy is transforming care across pediatric medicine.

The impact has been significant. When the project began, fewer than 10% of all pediatric cancer patients in Canada were being tested. By its final year, 60% of all pediatric cancer patients in Canada were receiving pharmacogenomic testing to help guide their care.

A real-world example of how this testing is used to guide treatment comes from a 12-year-old boy with a central nervous system tumour. After undergoing chemotherapy, a stem cell transplant and radiation, his cancer sadly relapsed. With few treatment options left, pharmacogenomic testing revealed he carried a genetic variant that protected his heart from damage caused by anthracycline chemotherapy. For patients like this, there are few options. Testing gave his doctors the confidence to proceed with a high-dose treatment.

Watch Dr. Bruce Carleton discuss how genomics is improving cancer care for children.

"The other thing that's going to jumpstart improvements is the Canadian Precision Health Initiative, that Genome BC is participating in with Genome Canada. This idea of getting large-scale whole genome sequencing data coupled with clinical data and analytical tools to better analyze, using AI tools, the data that we have available. To understand differences between patient populations and give us targets that we can look at to begin to understand what we can manipulate to improve outcomes. That's going to be a game changer."

Dr. Bruce Carleton, Director, Pharmaceutical Outcomes Programme, BC Children's Hospital

PRECISION AT THE POINT OF TRANSPLANT

Every year, hundreds of British Columbians receive a second chance at life through kidney transplantation. But for many, that hope comes with lifelong immunosuppressive drugs and the risk of rejection. In BC, that's beginning to change.

Led by Dr. Paul Keown, a team of researchers and clinicians is implementing a genomic approach to improve transplant outcomes, using detailed genetic sequencing to better match donors and recipients at the level of the immune system. By identifying epitope-level compatibility (tiny markers the immune system recognizes), they can predict and prevent rejection before it starts.

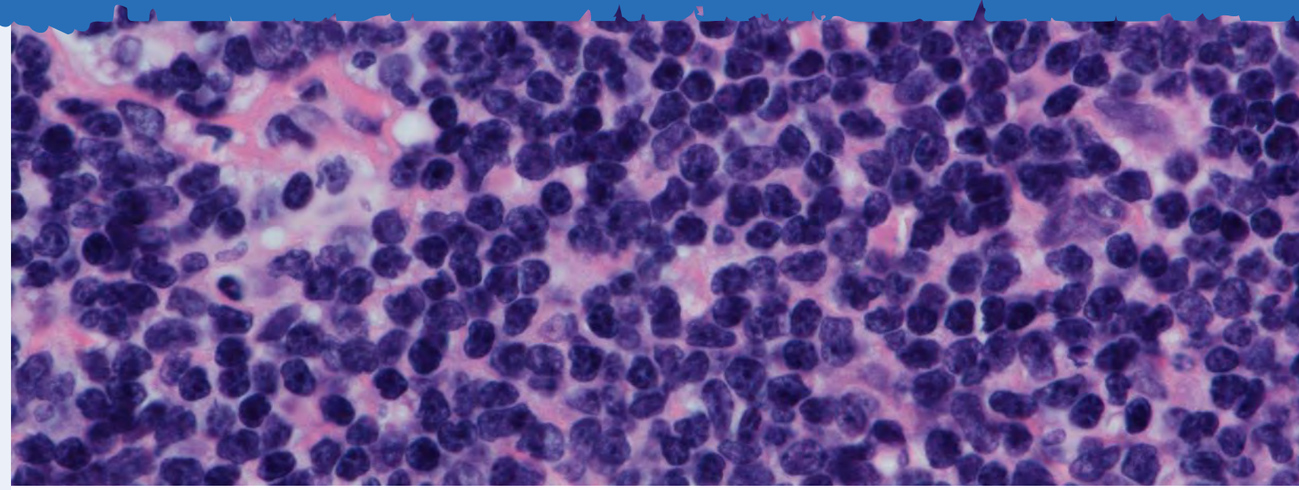
Supported by Genome BC in collaboration with Canadian Blood Services, this approach is already in use across BC as a test bed for national adoption. This approach is helping clinicians make more informed decisions, reduce complications and in some cases, eliminate the need for lifelong anti-rejection medication.

This isn't just a technical advance — it's a shift in how transplantation medicine is practiced. With one of the world's largest prospective transplant cohorts, BC is setting a new standard for precision immunology. And for patients, it means more than a matched kidney — it means a safer, healthier future.

Watch Dr. Paul Keown discuss how genomics has led to major advances in the success rate of organ transplants.

"It's been a tremendous partnership with Genome BC. We've had a number of really important successes. The first is that during this period we've seen the risk of rejection drop from close to 20%, now down to almost 1%...Second, we've been able to introduce a new, next generation nanopore sequencing technology across Canada. This will be the first country in the world to introduce this. It's truly a revolutionary process."

Dr. Paul Keown, Professor of Medicine, Director, Immune Sciences, Lead, Precision Medicine in Transplantation, Universityof British Columbia



DECODING LYMPHOMA: GENOMICS RESHAPES HOW WE DIAGNOSE AND TREAT RELAPSED CANCER

When lymphoid cancers return after treatment, they often become more aggressive and harder to treat. Until recently, doctors had few tools to predict relapse or guide care. That's changing, thanks to work led by Drs. Christian Steidl, Marco Marra and David Scott at BC Cancer.

By sequencing relapsed tumours and analyzing their genomic evolution, the team has uncovered new biomarkers that differentiate aggressive subtypes and predict treatment response. These discoveries have already been translated into new clinical diagnostic assays, now implemented as the standard of care in both Vancouver and Toronto.

One of those assays, called LExA, helps pathologists classify lymphomas with greater accuracy, while decision support tools designed for physicians and patients are enhancing shared treatment planning. Health economists on the team have also demonstrated that these genomics-based tests provide better value for the healthcare system.

The team is also helping to explain why some lymphomas don't respond to treatment, even to advanced options like CAR-T therapy. By studying how tumours change over time, they've identified patterns in the cancer's DNA that can signal when a treatment might fail — knowledge that could lead to better therapies in the future.

The project's findings were so significant that they helped reshape the World Health Organization's classification of lymphomas, establishing a new global standard.

This progress builds on over a decade of Genome BC investment in lymphoma research, including early funding for whole-genome sequencing, digital pathology and the BioLym biobank — critical assets that have established BC as a global leader in this field.

"Our partnership with Genome BC has been transformative, paving the way for significant advancements in genomic medicine. One of the most notable milestones has been the implementation of the LExA diagnostic assay for classification of aggressive B-cell lymphomas, enhancing the precision of lymphoma diagnostics and classification. Genomics promises to redefine oncology, enabling personalized treatments and improving patient outcomes, with new frontiers in spatial genomics and artificial intelligence."

Dr. Christian Steidl, Executive Director, Research at BC Cancer Research Centre, Research Director of Centre for Lymphoid Cancer, Head, Department of Lymphoid Cancer Research

RECLAIMING GENOMIC MEDICINE: SILENT GENOMES PUTS EQUITY INTO ACTION

What happens when the right test exists, but the relevant reference data doesn't?

For too many Indigenous people in Canada, a rare disease goes undiagnosed — not because medicine lacks the tools, but because those tools weren't built with them in mind. The Silent Genomes Project set out to change that.

In partnership with Indigenous researchers and communities, Silent Genomes launched the Indigenous Background Variant Library in early 2025. This secure, Indigenous governed genomic resource was designed to enhance diagnostic accuracy and improve health outcomes for Indigenous patients. The library already contains 597 sequenced samples and is in use by 75 registered users across 14 health centres and continues to grow.

An Indigenous Governance Committee provides stewardship, ensuring data use aligns with community values and supports clinical care. The project has drawn international attention, with features on Radio-Canada Découverte and TV5MONDE, reaching audiences in over 420 million homes.

Silent Genomes is more than a project — it's a rebalancing of power in genomic medicine. And it's proving what's possible when trust, science and sovereignty come together.

"Genome BC has made a tremendous difference in British Columbia, responding to the needs of British Columbians from a precision oncology perspective, and now rare disease. Genome BC has made a major difference in ensuring genomic testing, state-of-the-art genomic testing, is available to British Columbians."

Dr. Laura Arbour, Professor, Department of Medical Genetics, University of British Columbia and Project Lead, Silent Genomes Project

Watch Dr. Laura Arbour on Genome BC's impact on genomic testing in BC.

REWRITING THE PLAYBOOK ON GENETIC COUNSELLING

As genetic testing becomes part of routine health care, one question looms large: who helps patients make sense of it all?

Led by Dr. Alison Elliott (BC Children's Hospital and UBC) and a national team that included Dr. J9 Austin, the GenCOUNSEL project reimagined how Canadians access and experience genetic counselling.

With support from Genome BC, the team piloted new service models, including virtual appointments, digital decision aids and clinic-embedded counsellors — all designed to make genetic counselling more accessible, equitable and patient-friendly. They tackled workforce shortages, tested innovations in real-world settings and contributed evidence to support system wide change.

That momentum continues. In BC, Dr. Austin led a study evaluating how genetic counselling could support treatment decisions for patients with clinical depression, where pharmacogenomic testing may guide antidepressant use. A simulation model projected 37% fewer cases of treatment-resistant depression and estimated $956 million in health system savings over 20 years in BC alone.

Now, ACCESS-GC, a Genome BC funded trial, is embedding genetic counsellors into primary care clinics, aiming to integrate genomic support directly into communities and build on GenCOUNSEL's vision for equitable access to genomic care.

GenCOUNSEL proved genetic counselling doesn't need to be confined to specialists in major centres. It can, and should, reach people where they are. That's how we make precision medicine work for everyone.

Dr. Jehannine (J9) Austin, Head and Professor, Department of Medical Genetics, University of British Columbia, discusses pharmacogenomic breakthroughs and partnerships with Genome BC.

WHEN KNOWING THE ANSWER IS EVERYTHING: GENOMICS AND RARE DISEASE

For families facing a rare disease, the hardest part is often not knowing. What's causing their child's symptoms? Will it get worse? Is there anything they can do?

Thanks to more than a decade of Genome BC investment, those questions are finally getting answers. Landmark initiatives, such as CAUSES, TIDEX, RapidOMICS and Silent Genomes, have helped position BC as a leader in rare disease genomics. Diagnostic rates have risen from under 10% to more than 50% and in some projects, over 60%.

In neonatal intensive care units, rapid sequencing now delivers results in just days, enabling life-saving interventions before symptoms fully appear. For other families, genomic testing has ended years long diagnostic odysseys, connecting them to specialists, clinical trials and sometimes even treatments. These advances reflect close collaboration with BC Children's Hospital, Indigenous governance leaders and care teams across BC's health system.

New infrastructure now allows cutting edge sequencing to be performed in BC, improving turnaround times and reinforcing data stewardship. And with a focus on equity, Indigenous led projects are helping ensure no community is left behind.
Rare diseases may be individually uncommon, but together they affect millions. With genomics, more families in BC are finding answers faster and closer to home.

"I've worked on many Genome BC-funded projects over the last dozen years. In addition to achieving hundreds of diagnoses for individuals and families, that work has led to the discovery of entirely new diseases and also supported broader and more routine access to advanced genomic testing within the healthcare system."

Dr. Anna Lehman, Assistant Professor in the Department of Medical Genetics at the University of British Columbia

BREATHING EASIER: WHAT THE MICROBIOME REVEALS ABOUT ASTHMA RISK

When a child struggles to breathe, the fear is immediate and for families living with asthma, it can become all too familiar.

For years, asthma was something families learned to manage but couldn't hope to prevent. Now, research led by Dr. Stuart Turvey at BC Children's Hospital and UBC is changing that narrative. His team has uncovered a critical window in early life when the right microbes in a baby's gut can help protect against asthma. In the national CHILD Cohort Study, they found that infants missing four key bacteria from their microbiome — Faecalibacterium, Lachnospira, Veillonella and Rothia (FLVR) — were far more likely to develop asthma. When these bacteria were reintroduced in lab models, asthma symptoms faded.

Their findings go beyond the lab. Between 2000 and 2019 in BC, the use of antibiotics for infants decreased by 77% and the number of childhood asthma diagnoses dropped by 41% during the same period. The connection is clear: fewer antibiotics mean a healthier microbiome and fewer kids developing asthma.

This work, supported in part by Genome BC as part of a national effort to explore how genomics and the microbiome can drive more effective, preventative care for children, is shifting how we think about prevention. Sometimes, protecting a child's future starts with something as simple as protecting the bacteria in their gut.

Watch Dr. Patricia Schulte speak on the future of real time sampling in fish conservation.

"One of the things we're really trying to figure out is what genetic differences make a fish a resilient fish? And if we can identify those, can that help us to choose the best fish to breed in the hatcheries? We use genomics to address both the genetic differences that make some individuals super tough, and other ones more susceptible to environmental change. In concert with Genome BC (this work) has mostly been in fishes that are of ecological and economic concern."

Dr. Patricia Schulte, Professor and Canada Research Chair, Department of Zoology and the Biodiversity Research Centre, University of British Columbia

GENOMICS IN NATURAL RESOURCES: FROM FOUNDATIONAL RESEARCH TO A SUSTAINABLE BIOECONOMY

Over the past 25 years, our investments in genomics have enabled BC to build critical scientific capacity, anticipate environmental risks and develop practical, scalable solutions that support a cleaner, more sustainable future.

Today, this work is advancing Genome BC's mandate to support a sustainable bioeconomy through three strategic pillars: **food security, resilient ecosystems, and sustainable resource use** — goals that align with the UN Sustainable Development Goals and the province's innovation agenda.

British Columbia's forests, fisheries and farms are facing increasing pressure from rising temperatures and invasive species, as well as growing demands for sustainable food production. These challenges are not new, but they are intensifying. Fortunately, BC's early belief in, followed by steadfast support of genomics, has laid the groundwork for practical solutions. What began as foundational research into species, traits and ecosystems is now enabling real-time responses to protect biodiversity, support food security and strengthen resilience in the face of climate disruption.

Over the past decade, Genome BC has supported a wide range of projects that are transforming how we manage and sustain natural resources.

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FARMING FOR THE FUTURE: GENOMICS AND THE CLIMATE CHALLENGE

The climate crisis isn't coming — it's already on the farm. Droughts are drying out the soil. Heat waves are killing crops. In Canada, agriculture is responsible for approximately 10% of our greenhouse gas emissions, primarily from livestock and the use of fertilizers.

That's why Genome Canada launched the Climate-Smart Agriculture and Food Systems initiative (CSAFS). With $15.8 million in federal and partner funding, researchers are using genomics to help farmers cut emissions and adapt to a changing planet.

Projects are underway to:

— Breed crops that survive heat and need less water
— Improve soil biodiversity to make fields more resilient
— Cut methane emissions from cattle and nitrogen waste from fertilizers

Two national hubs, both co-led by Simon Fraser University, are ensuring the research leads to action. One hub is focused on data tools and access. The other helps move discoveries from the lab into the hands of producers, policymakers and communities.

With BC based leadership and local relevance, CSAFS is a clear example of how collaboration across disciplines and across Canada can transform genomic innovation into climate resilience and economic opportunity.

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ACROSS BC'S AGRIFOOD SECTOR, GENOMICS IS HELPING PRODUCERS ADAPT TO SHIFTING THREATS WHILE IMPROVING SUSTAINABILITY. From breeding bees that are more resistant to disease to using fermentation technologies that reduce the environmental footprint of dairy production, the sector is innovating with urgency. Genomic surveillance tools are also improving food safety by tracing pathogens like avian flu and norovirus more quickly, helping to prevent contamination and mitigate outbreaks. These advances are supporting a more secure and sustainable food system for BC.

IN BC'S FORESTS AND WATERWAYS, GENOMICS IS PROVIDING THE EVIDENCE NEEDED TO SAFEGUARD BIODIVERSITY IN A CHANGING CLIMATE. Genomic research has helped define climate-based seed transfer policies, ensuring that the 250 million trees planted in BC each year are better suited to survive in future conditions. This science is informing reforestation strategies across the province today. Genomics is also being used to detect invasive pests and pathogens earlier and more accurately, protecting forest health and reducing economic losses.

Researchers are also using genomic tools to assess salmon populations for their resilience to climate change, disease risk and hybridization — collecting and analyzing data that informs both recovery efforts and management practices. These insights are helping to protect culturally and economically important species at a critical time.

AS GENOMIC RESEARCH MOVES FROM DISCOVERY TO IMPLEMENTATION, IT IS INCREASINGLY SHAPING ENVIRONMENTAL POLICY AND NATURAL RESOURCE PLANNING. Earlier this year, Genome BC organized an Ideas Lab to develop innovative solutions that integrate genomics, social sciences, economics and policy research to tackle real-world biodiversity challenges in British Columbia. The event brought together diverse partners to discuss how genomics can inform environmental decision-making. It marked the first step in a broader effort to integrate genomic science with Indigenous knowledge, policy frameworks and local stewardship values.

Our investment in genomic capacity has positioned BC to respond more effectively to environmental pressures. Genomics is no longer just revealing what's at stake — it is actively shaping how we adapt, recover and thrive.

SMART REFORESTATION: SCIENCE BACKED POLICY FOR A CHANGING CLIMATE

Climate change is reshaping BC's forests. It is altering pest ranges, shifting rainfall patterns and stressing trees that are not adapted to these new conditions. For decades, replanting relied on geographic seed zones. But what if that's no longer enough?

Research has demonstrated that the genetic makeup of trees such as lodgepole pine and interior spruce is closely tied to their local climate. Using genomics, researchers identified traits such as drought resistance and cold tolerance, enabling predictions of which seed sources are best suited to future environments.

This work directly informed the BC government's Climate-Based Seed Transfer (CBST) policy, which became part of the Chief Forester's Standards for Seed Use in 2018. Instead of planting trees based on where they came from, CBST matches seed sources to where the climate is headed. It's a proactive shift — one designed to help the 250 million trees planted annually in BC not only survive but thrive.

By combining genomics, climate modelling and field trials, this approach is helping future proof our forests, ensuring that reforestation today will still make sense tomorrow.

FROM STRAIN TO STRENGTH: GENOMIC TOOLS FOR SALMON IN A CHANGING CLIMATE

Genome BC, in partnership with the Pacific Salmon Foundation, has supported research examining many aspects of salmon health under environmental stress, from understanding why fish health fails to identifying which fish are built to handle the heat of a changing climate. Early work uncovered genomic markers that reveal when salmon are under duress from heat, disease or low oxygen, helping managers respond to emerging threats in real time. Building on that foundation, newer projects are pinpointing genetic traits linked to resilience, guiding decisions about conservation priorities and hatchery releases. Together, this suite of genomic tools is transforming how BC monitors, protects and plans for salmon management in a changing climate — supporting species that are ecologically vital and culturally irreplaceable.

"We can't talk to fish, but genomic technology provides a powerful scientific tool through which we can effectively ask fish what they are experiencing. Are they too hot? Are they sick? Or stressed? With the introduction of genomic technology, we can now quickly screen each fish for up to 50 different infectious diseases and pathogens."

Dr. Andrew Bateman, Manager, Salmon Health Program, Pacific Salmon Foundation

Dr. William Bugg, Postdoctoral Research Scientist, Pacific Salmon Foundation, on how more sensitive and accessible sequencing will shape salmon health.

KELPGEN: RESTORING BC'S UNDERWATER FORESTS WITH GENOMICS

Kelp forests stretch along one-third of the world's coastlines — and in BC, they're ecological powerhouses. They support salmon and rockfish, shelter marine life, absorb carbon and anchor coastal communities. But rising ocean temperatures, marine heatwaves and urchin overgrazing are wiping them out.

Until recently, we knew almost nothing about kelp genetics in BC. That changed with KelpGen, a Genome BC-funded project supported through the GIRAFF program in partnership with the Investment Agriculture Foundation of BC.

Led by Dr. Greg Owens (University of Victoria) and Dr. Sean Rogers of Kelp Rescue Initiative and Bamfield Marine Sciences Centre, a globally recognized research station aligned with five leading western Canadian universities, KelpGen mapped the genetic diversity of bull kelp and giant kelp across BC's coast. The team uncovered distinct populations, signs of inbreeding and genetic clues to climate resilience, providing data and recommendations to guide restoration and aquaculture.

Now, we can make informed decisions about where to collect kelp seed, how far it can be moved and which strains are most likely to thrive in a warmer future. These insights are already being used by the Kelp Rescue Initiative to help restore BC's underwater forests — not just for today, but for generations to come.

Watch Dr. Gregory Owens, Assistant Professor, Biology at the University of Victoria, on using genomics for kelp conservation.

BETTER BEES, HEALTHIER HARVESTS

Canadian beekeepers lose nearly a third of their colonies each winter, posing a threat to both pollination services, valued at over $5 billion annually, and broader food security.

Through a national initiative known as BeeOmics, co-funded by Genome BC in partnership with the BC Ministry of Agriculture and the BC Honey Producers Association, Dr. Leonard Foster and his team laid the groundwork for a new approach to bee health. By using proteomic analysis, they identified biological markers linked to traits such as disease resistance, hygienic behaviour and winter survival. These protein-based biomarkers are now being used to guide selective breeding in apiaries across Canada. Colonies bred using this approach have shown significantly lower levels of parasites and viruses, including Varroa mites and Deformed Wing Virus, and higher rates of winter survival. Large scale studies across more than 1,500 colonies have confirmed the link between hygienic behaviour and reduced pathogen load, improved colony size and greater seasonal resilience.

In partnership with the Investment Agriculture Foundation of BC and Agriculture and Agri-Food Canada, Genome BC has continued to support this work by co-funding new research that combines climate, microbiome and genomics data to predict disease outbreaks before they occur. Where BeeOmics uncovered the why and how, the follow-up work scales the science into action. That means fewer dead colonies, more resilient food systems and better outcomes for both farmers and bees.

Watch Dr. Leonard Foster, Head, Department of Biochemistry and Molecular Biology, UBC, on using genomics to breed more disease resistant honeybees.

GENOMICS AT THE BORDER: STOPPING FOREST INVADERS BEFORE THEY SPREAD

Every year, cargo ships bring goods — and hidden threats — to BC's shores. Stowing away on these ships are forest pests, such as the spongy moth or sudden oak death, capable of unleashing ecological and economic devastation. Traditional inspections can miss them. Genomics doesn't.

With support from Genome BC, researchers have developed portable, DNA-based diagnostic tools that enable border agents and nursery inspectors to identify invasive species with speed and precision, often from nothing more than a smear of plant tissue or an egg case.

This genomic approach, refined through the bioSAFE project, now helps the Canadian Food Inspection Agency act before a threat spreads. It proved its value when sudden oak death was detected in BC nurseries. Rapid testing enabled early containment, averting what could have become a catastrophic outbreak.

For BC's forests — and the $14B sector they support — early action is everything.

Watch Dr. Richard Hamelin, Professor, Department Head, Forest Conservation Sciences, UBC, on how early action prevented the spread of Sudden Oak Death Disease in BC.

"This goes above and beyond using the genomics for diagnostic purposes. It informs risk foresight and where we need to be dedicating surveillance or inspection efforts. Stopping a pest before it arrives and gets established is much more cost effective."

Brittany Day, National Manager for Plant Research & Strategies, Canadian Food Inspection Agency

GENOMICS BRINGS CLARITY TO A GROWING BLUEBERRY THREAT

For years, blueberry growers in British Columbia were stumped. Plants were showing textbook signs of viral infection, but lab results kept coming back negative.

A research team with members from Simon Fraser University, the BC Blueberry Council and industry testing partner, Phyto Diagnostics Ltd, leveraged the power of genomic sequencing to investigate. They found the two main viruses affecting BC's blueberry fields — blueberry scorch and blueberry shock — had evolved. The standard testing method, called ELISA (a cost-effective tool that uses antibodies to detect infection), was no longer reliably catching these new variants, especially when virus levels were low.

The team developed a more sensitive, DNA-based test that now detects these viruses in nearly all symptomatic plants. With better data, growers can take the right actions — removing scorch-infected plants, but keeping those with shock, which can recover naturally.

A next-generation version of the ELISA test, informed by this research, is now in development. Once in use, it will provide a faster and more affordable tool for identifying infections early, protecting crops and preserving yields.

This kind of applied collaborative research is a strength of BC's life sciences ecosystem. Genome BC helped bring the right people and tools together to turn a frustrating problem into a workable solution.

Watch Dr. Eric Gerbrandt, Co-Founder & Chief Science Officer at BeriTech Inc. and Research Director at the BC Blueberry Council, on how lower sequencing costs will supercharge plant breeding, diagnostics and disease treatment in agriculture.

FROM MONITORING TO STEWARDSHIP:

GENOMICS AND THE LAND

British Columbia's economy is deeply tied to its natural resources, and as the province moves toward a cleaner, lower-carbon future, sectors such as mining and energy will continue to play a vital role. Genomics is helping these industries meet evolving environmental expectations while maintaining their global competitiveness. From improving copper recovery to reducing mine site emissions and minimizing waste, genomic tools are supporting more efficient, sustainable operations. At the same time, these innovations offer improved methods for monitoring ecosystem health, guiding remediation efforts and collaborating with Indigenous communities to responsibly steward land and water.

GENOMICS IS ALREADY TRANSFORMING HOW WE MONITOR ECOSYSTEMS. Researchers are using environmental DNA (eDNA) to detect species and stressors in water, soil, or sediment, often before visible damage occurs. Sentinel species such as mussels, frogs, and fish reveal early signs of pollution or disruption. In urban areas, microbial DNA is helping assess how engineered wetlands absorb contaminants from stormwater. These insights inform environmental policy and give companies better tools to meet and exceed regulatory standards.

BEYOND EARLY DETECTION, GENOMICS IS GUIDING RESTORATION. Microbial communities are being used to break down harmful compounds in soil and water at former mine sites. Genomic analysis identifies the native bacteria best suited to the task and tracks their effectiveness. These approaches reduce the uncertainty of long-term remediation while enhancing outcomes for both ecosystems and communities.

INDIGENOUS LEADERSHIP IS ESSENTIAL TO THIS WORK. Indigenous Peoples have long stewarded these lands, guided by place-based knowledge and deep relationships with the environment. When genomic tools are used in respectful, ethical ways, they can support Indigenous led conservation and land management. In the Okanagan, for example, genomics has helped monitor the reintroduction of kokanee salmon — a project led by the Okanagan Nation Alliance and shaped by cultural priorities.

Genome BC remains committed to advancing this work through investment, partnership, and dialogue, helping ensure that innovation supports both sustainability and sovereignty.

"Climate change is real, and energy transition is vital to mitigate its effects. The success of this transition will require a significant increase in critical mineral extraction. Genomics offers powerful tools to extract a higher percentage of metal from the same rock, to advance mine site restoration, and to improve handling of mine wastewater. It's very encouraging to see organizations like Genome BC bring interdisciplinary thinking into mining — something I've always believed is critical for the future of this industry."

Dr. Peter M D Bradshaw, P. Eng. Founder, Bradshaw Research Institute for Minerals and Mining. Inductee into the Canadian Mining Hall of Fame

MICROBIAL MARVELS: TURNING TAILINGS INTO OPPORTUNITY

Mine tailings, the dusty, mineral-laden by-products of extraction, represent one of the most persistent environmental challenges in modern mining. However, two new Genome BC-funded projects are investigating how naturally occurring microbes might help transform these industrial leftovers into both environmental and economic opportunities.

Working in partnership with Teck, Rio Tinto, Koonkie Canada and BGC Engineering, researchers are testing microbial solutions for two urgent issues: dust suppression and copper recovery.

The first project focuses on biocementation-harnessing microbes that can create a hardened crust over tailings to prevent dust from escaping into the environment. This biological approach could reduce reliance on water-intensive spraying or chemical stabilizers, providing a more sustainable method for managing tailings and protecting nearby ecosystems.

The second project investigates microbes that can cause residual copper particles in tailings to cluster together. If successful, this microbial-assisted concentration could facilitate the extraction of leftover copper from tailings — a valuable resource at a time when global supply is insufficient to meet soaring demand. More than 43 million tonnes of residual copper are estimated to be present in tailings sites worldwide.

Together, these innovations show how microbial genomics can support both planet and profit, reducing the environmental impact of mining while helping BC remain competitive in the global race for critical minerals.

"Microbes present a compelling solution to reduce the environmental effects of mining while also capturing additional value from mining by-products."

Alison Morrison, Senior Microbiologist, Teck Resources Limited

GUARDIANS OF THE WATERS: GENOMICS AND TRADITIONAL KNOWLEDGE GUIDE SALMON RECOVERY IN THE OKANAGAN

In partnership with the Okanagan Nation Alliance, BC Ministry of Forests and BC Hydro, Genome BC supported a genomics-based program to monitor the reintroduction of sockeye salmon into Skaha Lake. This project used genetic analysis to track potential hybridization with native kokanee populations, helping to guide reintroduction efforts without jeopardizing resident species. The resulting roadmap is now informing broader salmon restoration strategies across the province, offering a model of how Indigenous knowledge and genomic science can work together to sustain culturally and ecologically important fish populations.

ALIGNING FOR BIODIVERSITY IMPACT

British Columbia is home to extraordinary ecosystems and a vibrant community of scientists, policy leaders and Indigenous knowledge holders working to protect them. In May 2024, Genome BC convened a cross-sector workshop to explore how BC can strengthen its contribution to the Kunming-Montreal Global Biodiversity Framework — a UN agreement that sets out international targets to halt and reverse biodiversity loss by 2030.

The workshop affirmed that BC is rich in talent, tools and commitment, but also highlighted opportunities to better connect efforts, align data systems and ensure that all voices, including Indigenous knowledge holders, are part of a shared approach. Participants recognized the potential for creating a coordinating hub to enhance collaboration, facilitate data sharing and expedite solutions that bridge science and action.

Insights from the workshop are shaping Genome BC's new Policy and Research Innovation Laboratory. With biodiversity as its inaugural theme, PRIL will support collaborative strategies that leverage BC's strengths — scientific, cultural and institutional — to drive sustainable impact.

When knowledge flows across disciplines and sectors, BC is better equipped to meet global biodiversity goals and to lead with bold, coordinated action.

MAPPING CANADA'S BIODIVERSITY, ONE GENOME AT A TIME

Imagine trying to protect what you can't fully see. That's been the challenge of biodiversity conservation. With the Canadian BioGenome Project, researchers aim to build a reference library of life by sequencing the genomes of every plant, animal and fungus in Canada.

It's an ambitious undertaking — and it starts right here in British Columbia, home to over 70% of Canada's mammal, bird and non-vascular plant species. Genome BC is helping lead this work by supporting local projects that utilize genomics to identify which species are present, how they're connected and how they're changing.

This isn't just about understanding nature, it's about protecting the benefits it provides. Healthy forests filter our water. Kelp beds shelter young salmon. Soil microbes support food security. The more we understand these systems at a genetic level, the better we can restore them when they're damaged and safeguard them before it's too late.

Just as important, the project is creating space to combine genomic research with Traditional Indigenous Knowledge, recognizing that long-standing relationships with the land offer insights no genome can provide on its own.

From old-growth forests to alpine meadows, BC's ecosystems are under pressure. Genomics is providing us with a clearer picture of what we stand to lose and how to respond.

SETTING THE STANDARD FOR eDNA: A CANADIAN-LED EFFORT TO TURN DATA INTO TRUSTED ACTION

What if a single water sample could reveal everything in an ecosystem, from fish to frogs to invasive species, without disturbing a single creature? That's the promise of environmental DNA, or eDNA. However, for eDNA to support genuine conservation efforts, the data must be credible, comparable and collected with care. Canada is leading the way on this significant challenge.

Building on work through the iTrackDNA initiative, Canadian researchers, regulators and Indigenous partners came together and, in 2021 and 2023, created the country's first national standards for eDNA collection. These new CSA standards are now in place to guide the collection, storage and analysis of samples, ensuring results are trustworthy and legally defensible.

The next step is making those results easier to use. Led by Caren Helbing (University of Victoria) and Rachel Meyer (UC Santa Cruz), eDNA Explorer Canada is adapting a powerful data sharing platform to meet Canadian environmental laws and sovereignty requirements. Designed with open access in mind, the tool enables communities, scientists and governments to explore and compare eDNA results in real-time.

Together, the standards and the platform are doing more than organizing data — they're building the foundation for credible, transparent biodiversity monitoring in Canada.

Watch Dr. Caren Helbing, Professor, Biochemistry and Microbiology, University of Victoria, on how eDNA transforms environmental monitoring.

"The Health Metadata Commons is laying the foundation for a new era of collaboration in health and genomic research. By enabling the discovery and secondary use of genomic data, the platform fosters a culture of transparency and accountability, supporting meaningful engagement between researchers. This initiative positions BC — and Canada more broadly — as a global leader in health and genomic data sharing."

Dr. Raymond Ng, Director, Data Science Institute, Professor, Computer Science, University of British Columbia

FROM FRAGMENTATION TO FRAMEWORKS:

BUILDING BC'S GENOMICS DATA ECOSYSTEM

Data is the backbone of genomics, enabling researchers to turn information into actionable insight. Through ongoing investment in infrastructure, tools and expertise, Genome BC is powering real-world applications — from precision health to climate adaptation and resource management. This strong data foundation is driving research, innovation and impact in key sectors across the province.

Genomic data is vast and complex, requiring specialized technologies and analytical methods. Omics research generates massive, interrelated datasets that demand substantial storage and processing power. Genome BC has helped build platforms that integrate diverse data types, including genetic sequences, clinical records and environmental information. These resources enable researchers to uncover new biological knowledge, identify disease markers and develop targeted interventions. Shared datasets multiply scientific value and extend the impact of public research investment. Over the years, Genome BC supported projects have also advanced the use of machine learning to process complex datasets, incorporating practices to reduce bias in training models and strengthen responsible artificial intelligence (AI) development.

At the same time, data-driven approaches are advancing precision health, agriculture and environmental stewardship. In health care, genomic data supports early diagnosis, personalized treatment and public health surveillance. In agriculture, it informs crop improvement and sustainable farming practices and in environmental science, it helps monitor biodiversity and ecosystem health.

Continued on page 26

DATA ABOUT DATA AND WHY IT MATTERS

Genomics generates vast amounts of data. All this genomic data is only useful if we know what it means, where it came from and how it was collected. That's where metadata comes in. It's data about data and it's essential for making information usable, shareable and trustworthy.

Genome BC's Health Metadata Commons is collaborating with partners across the province to bring more clarity and consistency to health-related genomic data. By creating shared standards and frameworks, this initiative helps researchers and clinicians work with data more effectively, while ensuring privacy, equity and ethical use remain front and centre.

Now, that same approach is being explored in a new context. In collaboration with Genome Alberta, work is underway to expand the model into the agrifood sector, where more coordinated data could support crop resilience, livestock health and food security. It's a reminder that strong foundations — even ones as obscure as metadata — can have real world impact.

GENOME BC'S METADATA COMMONS

Continued from page 24

Supporting responsible data use is a key priority. Genome BC promotes robust governance frameworks, data sharing agreements and ethical guidelines that protect privacy and respect Indigenous data sovereignty. This includes alignment with OCAP® principles (Ownership, Control, Access, and Possession) and Canada's commitment to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), ensuring that Indigenous Peoples retain control over their data and how it is used. Genome BC is also responding to growing demand for Canadian genomic data to be stored domestically, reinforcing national data sovereignty. As a neutral convener, Genome BC works across sectors to facilitate the responsible use and sharing of genomic data, helping align research efforts with practical needs and societal values.

In collaboration with Providence Health Care Ventures, Genome BC started the Data Analytics and Implementation Advancement (DAIA) program in 2022. This year, as DAIA 2, Genome BC will collaborate with another partner to provide researchers with access to BC-wide data. This initiative makes health data more usable for research and innovation. By linking genomics datasets and enhancing analytic capacity, DAIA turns data into insights that improve care and inform policy.

The Metadata Commons, a Genome BC-led initiative, supports the discoverability of human health data and its secondary use. Now expanding into the agrifood sector through a partnership with Genome Alberta, it strengthens cross-disciplinary integration.

Genome BC also supports new applications of artificial intelligence in genomics, recognizing AI's role in accelerating insight from large datasets. While progress has been significant, challenges remain, including fragmented infrastructure, inconsistent standards, and limited interoperability. Genome BC is working with partners to overcome these barriers, ensuring that data can be transformed into knowledge and that knowledge can be translated into action.

Looking forward, Genome BC is focused on scaling data infrastructure and expanding collaborative networks. We are investing in training and tools that accelerate discovery and translation. With a strong data ecosystem in place, BC is positioned to lead in genomics innovation that benefits health, society and the environment.

As genomics becomes increasingly central to health, environmental stewardship and natural resource innovation, Genome BC's investments in data are laying the foundation for a connected future — a future where BC leads the next wave of discovery and science drives lasting impact.

A PARTNERSHIP FOR EQUITABLE HEALTH INNOVATION

PHC Ventures is transforming the way research drives change in complex healthcare systems. Through its flagship platform — the Institute for Health Innovation and Development (IHID) — PHC Ventures is creating space for new models of care, grounded in the realities of chronic disease, social inequities and the need for better integration between research and frontline delivery.

Genome BC is a key partner in this mission. By supporting genomics-informed research at IHID, Genome BC is helping address gaps in diagnosis and care for patients whose needs are often overlooked by conventional approaches. Genomic data, when used responsibly, has the power to clarify complexity and guide more targeted, effective interventions.

This work is enabled in part by Genome BC's DAIA (Data Access, Integration and Analysis) program, which strengthens the infrastructure needed to bring together clinical, genomic and health system data. DAIA ensures researchers and care providers have the tools to generate real world insights that improve outcomes and inform equitable solutions across BC.

Together, PHC Ventures, IHID and Genome BC are building a more responsive health innovation ecosystem — where data meets complexity and genomics delivers impact.

CLIMATE-SMART FARMING STARTS WITH BETTER DATA

Across British Columbia, farmers are seeing the effects of climate change — unpredictable weather, new pests and shifting growing seasons. To respond, they need more than instinct. They need better data.

The Climate-Smart Data Collaboration Centre (CS-DCC) is designed to meet that need. Co-led by Dr. William Hsiao (Simon Fraser University), Dr. Michelle Edwards (University of Guelph) and Dr. Claude Robert (Université Laval), this new initiative is building a shared data system to help farmers and researchers make informed, real-time decisions—from what to plant to how to protect yields in a drought year.

In BC, where small-and mid-sized producers play a critical role in food security, access to trustworthy, usable data is often limited. The CS-DCC aims to change that by connecting genomic data, environmental monitoring and farm-based tools in ways that respect privacy and support practical action on the ground.

But this isn't just for BC. The work underway here will feed into a national framework to help producers across Canada lower emissions, build climate resilience and strengthen long-term sustainability, without waiting for perfect conditions.

With Genome BC's support, this project is helping turn data into knowledge farmers and decision-makers can act on.

Learn from experts in Genome BC's Data Literacy Webinar Series — focused sessions exploring how data is shared, used and unlocked across sectors.

BUILDING BETTER STORAGE FOR THE GENOMICS ERA

Genomic research is advancing science, helping doctors match patients with appropriate treatments, monitoring the spread of disease and discovering the secrets of biodiversity. But all this progress relies on one thing: data. Enormous amounts of it. And that data needs somewhere to live.

Currently, storing genomic data is costly, energy-consuming and often inefficient. That means less room for discoveries and increased pressure on existing systems that researchers depend on. To address this issue, the Michael Smith Genome Sciences Centre and Swiss Vault have partnered through Genome BC's GeneSolve program to develop a better solution.

The project is testing new software and hardware that could make it easier and more affordable to manage high volumes of data. At its heart is the Vault File System, designed to improve performance, reduce energy consumption and minimize e-waste. Alongside this, custom server hardware is being evaluated for its speed, reliability and ability to handle future growth.

The goal isn't just to store data — it's to make it usable, future-proof and environmentally responsible. For researchers working at the frontiers of genomics, that kind of infrastructure could make all the difference. Because when science moves fast, the infrastructure needs to keep up.

Credit: Province of British Columbia

FROM CONCEPT TO COMMERCIALIZATION:

TURNING INNOVATION INTO IMPACT

British Columbia is now home to one of the fastest-growing life sciences ecosystems in Canada — an achievement rooted not only in world-class research but in the ability to transform scientific discoveries into real-world solutions. Genome BC plays a pivotal role in this pipeline, supporting commercialization and entrepreneurship through targeted investments, strategic partnerships and a commitment to building BC's bioeconomy.

Since 2000, Genome BC has advanced 244 companies through its commercialization programming and funding support, helping turn innovation into investment-ready ventures. These efforts have contributed an estimated $4.9 billion to BC's GDP, supporting over 28,000 full-time jobs across the province.*

Early investment from Genome BC has helped propel companies from startup to global influence. AbCellera and Aspect Biosystems have evolved into internationally recognized biotech innovators. At the same time, Precision NanoSystems, which was supported in its formative years, was later acquired by Danaher Corporation and integrated into Cytiva to advance the manufacturing of genetic medicines. These stories highlight the importance of early investment in developing sustainable ventures that enhance health outcomes, stimulate economic growth and deliver lasting impact.

Genome BC's Industry Innovation Fund (I^2) provides up to $1.5 million per company to support the development and commercialization of life science technologies. The Entrepreneurship Partnership Program, launched in 2015, supports accelerators and incubators embedded within BC's post-secondary institutions, creating space for innovation in health, cleantech and beyond.

This work is more than investment — it's ecosystem building. Genome BC works across sectors to connect startups with academic researchers, clinical partners, regulators and investors. These connections help align private sector innovation with public benefit, guiding companies through the critical path from concept to commercialization.

As BC implements its Life Sciences and Biomanufacturing Strategy, Genome BC is uniquely positioned to drive the sector forward. Its track record shows that strategic, science-driven investment pays off, not just in terms of GDP and job creation, but in technologies that improve lives.

Looking ahead, Genome BC will continue to support made-in-BC innovations with global potential. Because when research is met with the right resources, relationships and resolve, genomic innovation doesn't just grow companies, it transforms industries.

* Economic and Social Impact Analysis, MNP LLP, 2022

FROM STARTUP TO STANDOUT

Because we supported early-stage innovation, we're now seeing the future take shape.

Genome BC's Industry Innovation Fund (I^2) isn't just about financing companies. It's about recognizing potential before it's obvious. Some of BC's best-known biotech firms started with early Genome BC support — but what about the next generation?

Meet a few of the entrepreneurs and innovators now scaling bold ideas into real-world solutions.

ARBUTUS MEDICAL

ENGINEERING ACCESS

Because Genome BC believed in a low-cost drill, more people are getting life-saving surgery.

A power drill in an operating room? At Arbutus Medical, that's not a punchline — it's the product. With early support from Genome BC's Industry Innovation Fund, this BC-based medtech company adapted standard hardware tools into sterile, safe and affordable surgical instruments for use in low-resource settings

Their DrillCover system has been used in over 45 countries, providing essential orthopaedic care in refugee camps, conflict zones and underserved hospitals. By making surgical tools radically more accessible, Arbutus is closing critical gaps in global health care and reducing disability caused by untreated injuries.

Genome BC's investment helped accelerate testing and regulatory milestones in the company's early stages. Today, Arbutus Medical is expanding its reach, demonstrating that innovation born in BC can improve lives worldwide.

Innovation that meets people where they are. That's impact.

"Genome BC's Industry Innovation Fund played a key role in helping Arbutus Medical scale from early commercial traction to a multi-product portfolio with strong market validation.

When Genome BC invested in 2022, we had initial product-market fit and early sales in a single use case — skeletal traction. Their non-dilutive funding enabled us to leverage additional dilutive capital — tripling Genome BC's contribution — which we used to expand our flagship product and develop three additional procedure kits."

Lawrence Buchan, CEO, Arbutus Medical Inc.

IMPACT

GENOME BC THROUGH 25 YEARS

A SELECTION OF HIGHLIGHTS WHERE GENOMICS HAS DELIVERED REAL WORLD RESULTS FOR BC AND BEYOND.

Over the past 25 years, genomics has evolved from a promising new science to an essential tool for solving real world challenges.

From improving health care and protecting biodiversity to driving sustainable resource management, Genome BC's investments have translated research into tangible benefits for people, communities, and industries across the province and beyond.

These milestones show what's possible when innovation meets purpose.

JULY 2000

Genome BC is incorporated under the Canada Corporations Act as a not-for-profit organization, marking its formal founding after years of development. Individuals like Dr. Roger Foxall and the late Nobel laureate Dr. Michael Smith drove the vision to build a genomics-focused innovation community in British Columbia.

APRIL 2003

A BC-led effort sequences the severe acute respiratory syndrome (SARS) virus that had spread to 26 countries. This research leads to the development of a vaccine and demonstrates the value of collective research capacity.

2006

Genome BC launches the Geneskool® educational outreach program, which now delivers curriculum-enhancing genomics resources, classroom workshops, campus field trips and summer science camps to over 50% of BC's high school students.

2014

A GENOME BC-LED INTERNATIONAL PROJECT SEQUENCES THE ATLANTIC SALMON GENOME.

This project completes a fully mapped and openly accessible Atlantic salmon reference genome that has become the basis for all salmon research worldwide.

2018

Genome BC launches the Silent Genomes project to reduce the inequitable access to genomic diagnosis, treatment and care for Indigenous Peoples. This project establishes processes for Indigenous governance of biological samples and genomic data and initiates the creation of an Indigenous Background Variant Library, to provide a common reference for DNA variants found in Indigenous populations.

2019

Cure rates for Large B Cell Lymphoma are doubled, thanks to insights from Genome BC funded research that led to the development of a specialized chemotherapy program in British Columbia. Similar treatment improvements have been observed in other lymphoid cancers. These results were achieved thanks to the combined efforts of a number of large-scale projects into lymphoma, dating back to 2005.

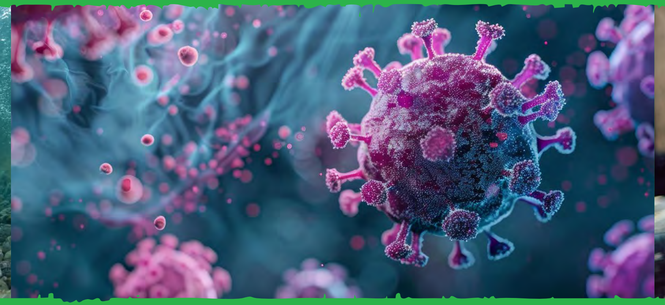
2021

Creation of the Mining Microbiome Analytics Platform (MMAP), providing an unprecedented understanding of the mining microbiome. In partnership with leading mining companies like Teck Resources Limited and Rio Tinto, Genome BC established MMAP, a first-of-its-kind integrated platform that collects and analyzes genomic data from mine sites samples (rock, soil, water), offering new insights into the mining microbiome. In 2025, MMAP is spun off into the private company Nphyla.

2025

NEW INVESTMENTS HELP BC PREPARE FOR THE THREAT OF H5N1 AVIAN INFLUENZA.

A suite of projects in partnerships with the Ministry of Health, the Ministry of Agriculture, the Provincial Health Officer and the BCCDC are investigating airborne spread, developing antibody tests, implementing an early warning system using wastewater surveillance and enhancing our understanding of how the virus is changing. This expands on prior Genome BC research from 2019 that delivered a genomics-based test proven to be 37 times more effective at detecting H5N1 than previous methods.



OCTOBER 2004

EARLY INVESTMENTS IN ORGAN REJECTION RESEARCH PAY OFF.

A project is launched to explore the use of biomarkers to help reduce organ transplant rejection rates. This is the first in a series of research projects that have contributed to dropping the risk of rejection from close to 20% in 2004, down to almost 1% today.

OCTOBER 2010

Seeding AbCellera's growth, a project is launched with Carl Hansen of the University of British Columbia to develop groundbreaking single-cell analysis technologies. This pivotal work directly leads to the creation of AbCellera Biologics Inc. to move these technologies forward. AbCellera has grown to become an anchor of BC's life sciences ecosystem, with nearly 600 employees and a valuation of over $1.3 billion.

2015

Hereditary cancer screening wait times drop dramatically, from 13 months to six weeks, while per-patient costs are lowered by 56%. This improvement came thanks to a new method from BC Cancer, building on previous Genome BC investments, that simultaneously screens patients for 17 genes related to hereditary cancer, up from the previous benchmark of four genes.

2018

Development of real-time monitoring for resistance to HIV/AIDS treatment. The HIV drug 'cocktail' transformed AIDS from a fatal disease to a manageable condition. Unfortunately, HIV can become resistant to these drugs. A Genome BC project develops a real-time method to monitor early signs of HIV resistance.

FEBRUARY 2020

WITHIN DAYS OF BRITISH COLUMBIA CONFIRMING ITS FIRST CASE OF COVID-19, GENOME BC FAST TRACKS FUNDING TO STUDY THE VIRUS,

including a grant to sequence the SARS-CoV-2 genome and to modernize and expand the BC Centre for Disease Control's sequencing capacity. This work helped trace BC's early cases, identify patterns of infection and track the movement and evolution of new variants, directly informing BC's and Canada's pandemic response. This work also spurred new methods like wastewater surveillance, now being implemented in British Columbia for a variety of pathogens.

2021

Genomic selection breeds BC trees for a new climate. Technology advances, such as new genetic arrays used by the Canadian Forest Service's tree breeding program, are helping foresters and conservation managers identify important traits in key tree species like Ponderosa Pine, Sitka Spruce, Douglas Fir, and Western Redcedar. This significantly boosts British Columbia's forestry industry by improving timber yields and helping to breed more climate-resilient trees, positively impacting the economy and employment.

2022

Aspect Biosystems develops a new treatment for Type-1 Diabetes using bioprinted tissues. A project with Aspect Biosystems successfully developed an implantable device using bioprinted tissues that could cure Type 1 Diabetes in diabetic rats. Future versions of the technology developed during this project could eliminate the need for pancreatic organ donors. In April 2023, Aspect and Novo Nordisk announce a $2.6 billion collaboration to further develop bioprinted tissue therapeutics for diabetes and obesity.

2024

Genome BC investments have dramatically reshaped our understanding of rare diseases. When research began in the early 2000s, the genetic cause of a rare disease was found in about 3% of patients tested, by 2024 advances in testing, technology and the identification of new rare diseases have resulted in well over 50% of testing returning a genetic cause. A pair of Genome BC projects discovered the genetic source of 85 new rare diseases.

Stōkō™

WEARABLE SCIENCE FOR ACTIVE LIVES

Because Genome BC supported a start-up in a ski town, athletes are staying active with support they can't even see.

Born out of BC's sporting culture, Stoko is changing the game in injury prevention. Their innovation? Supportive athletic apparel that incorporates medical-grade bracing, without the bulk or discomfort. Designed with elite biomechanics in mind, Stoko's tights and shorts provide joint stability while enabling full range of motion.

With support from Genome BC's Industry Innovation Fund, Stoko transitioned from concept to high-performance product, utilizing data-informed design to engineer compression garments that adapt to the body's natural movements.

Today, Stoko's gear is used by Olympians, pro athletes and weekend warriors alike — supporting recovery and reducing the risk of reinjury. It's a wearable example of BC's innovation ethos: where science meets real life and function meets form.

You don't have to see the support to feel the impact.

verdi

FARMING SMARTER, NOT HARDER

Because Genome BC backed an idea about smarter irrigation, BC is helping farms waste less and grow more.

Every plant is different, and Verdi is building the future of farming one plant at a time. This BC-based agri-tech company applies data science and automation to deliver water and nutrients with precision, down to the level of individual plants.

With early support from Genome BC's Industry Innovation Fund, Verdi developed modular, AI-driven infrastructure that retrofits existing irrigation systems. The result? Dramatic reductions in water use, lower emissions and healthier crops. Their approach has particular value in BC's specialty crop sector, where precision can mean the difference between yield and loss in a changing climate.

Genome BC's investment helped Verdi move from concept to field trials, accelerating their path to market. Now deployed on farms across the province, Verdi is showing how small tech can make a big difference in food security and environmental resilience.

Smart farming, rooted in BC innovation.

Watch Arthur Chen on how Genome BC helped Verdi's global expansion.

"We've more than quadrupled our revenue velocity in just the past few months of working together with Genome BC. If you look at our financials, there's actually a very specific time when our ability to distribute and execute on sales increases dramatically. And that's actually timed together with the Genome BC funding.

We've been able to really leverage that funding and go from being a BC based technology innovation to really commercializing, not just within Canada but also commercializing globally through export markets."

Arthur Chen, Co-Founder and CEO, Verdi Expeditions Inc

augurex

A BLOOD TEST FOR THE FUTURE

Because Genome BC invested in a blood-based biomarker, patients with autoimmune disease may soon get answers faster.

Autoimmune diseases like rheumatoid arthritis can take years to diagnose and treat effectively. Augurex Life Sciences is changing that — with a simple blood test that identifies the 14-3-3η protein, a biomarker associated with disease activity and progression.

With early-stage investment from Genome BC, Augurex was able to validate and commercialize the test, now licensed globally and used by specialists in over 20 countries. This breakthrough means earlier diagnosis, better monitoring and more personalized care for patients living with chronic autoimmune conditions.

Led by Norma Biln, Augurex exemplifies BC's strength in biotech diagnostics, where targeted innovation leads to actionable insights. Genome BC's early support helped advance a powerful idea from lab to clinical use.

Faster answers. Better outcomes. Proof that BC is leading in life-changing diagnostics.

Watch Dr. Norma K. Biln, Founder and Board Chair, Augurex Life Science Corp., speak on how Industry Innovation funding from Genome BC enabled Augurex to take risks.

i²

Curious about where BC's next biotech leaders are coming from? Explore more I²-funded companies at **isquaredfund.ca.**

FUTURE PROOFING WITH GENOMICS:

FROM EMERGING ISSUES TO **COORDINATED RESPONSE**

Uncertainty is the only certainty in today's world — pandemics, climate disruption, invasive species and new biological threats are emerging faster than ever. Genomics is a powerful tool for staying ahead of these challenges; however, emerging issues don't wait for long planning cycles. Thankfully, Genome BC has built the infrastructure, partnerships and foresight to respond to these challenges with agility.

By enabling earlier detection of emerging risks, from viral mutations to ecosystem shifts, genomics provides a critical early warning system. British Columbia is already seeing this in action: genomic sequencing helped track COVID-19 variants, while the same methods are now used to monitor antimicrobial resistance in hospitals, invasive species in forests and pathogens in food systems and shellfish. These efforts help policymakers and communities act before problems escalate.

Genome BC's strengths lie not just in its funding, but in its ability to convene the right partners and align resources quickly. Whether responding to wildfire related air quality concerns, norovirus outbreaks in oysters or avian influenza in wetlands, Genome BC has shown it can adapt funding processes, absorb risk and launch solutions in real time.

At the same time, Genome BC is helping BC prepare for what's next. New technologies from bioengineering to artificial intelligence guided genomic prediction are already being explored through initiatives like the UBC BioProducts Institute and Canada's Immuno-Engineering and Biomanufacturing Hub. Genome BC is also investing in Chronic Wasting Disease and H5N1 research, ensuring BC remains proactive in the face of new zoonotic threats.

Genome BC is also working to ensure that environmental genomic innovations are both impactful and responsibly implemented through the development of a new Policy, Research, and Innovation Lab for the Environment, which brings together diverse stakeholders to guide how genomics supports biodiversity, sustainability and climate resilience.

In a world of accelerating change, Genome BC's unique role as both a funder and bridge builder ensures that British Columbia can not only respond to today's challenges but shape tomorrow's solutions. By investing in readiness, collaboration and innovation, we are helping BC stay resilient — whatever the future may bring.

FROM EARLY WARNING TO RAPID RESPONSE

Genomics gives us the power to detect biological threats before they escalate. Whether it's a virus in wastewater, a foodborne pathogen in shellfish or the early genetic signals of disease in wildlife, these tools are transforming how we monitor risk across health, environment and agriculture. In BC, genomic surveillance is now being used to track antimicrobial resistance in hospitals, identify norovirus and Vibrio parahaemolyticus in oysters and monitor the presence of zoonotic viruses like H5N1 in wetland sediment.

But early warning only matters if we can act on it. Genome BC has built the internal agility to do exactly this. During the COVID-19 pandemic, we approved funding for viral sequencing at BCCDC within days. Just weeks later, we launched a rapid response program that funded 13 projects focused on real time diagnostics, Personal Protective Equipment safety and outbreak management. Similar approaches have since supported urgent pilot studies on wildfire smoke and respiratory health, Chronic Wasting Disease and avian influenza.

BC's advantage lies not just in the power of its science but in its ability to move quickly, collaboratively and with purpose. With genomics, we're not just responding to problems — we're anticipating them.

BIOINNOVATION IN ACTION

Preparing for tomorrow's challenges means investing in the next generation of genomic tools. Genome BC continues to support innovative platforms that bring biology and engineering together to solve complex problems — from sustainability to data analysis.

Through the BC Pulp & Paper BioAlliance, Genome BC is supporting the UBC BioProducts Institute as it explores the use of biological catalysts to convert mill waste into high value bioproducts. These technologies could reduce industry waste while creating new bio-based materials with economic and environmental value.

At the same time, machine learning is being applied to large genomic datasets across multiple projects. These tools enable researchers to model the spread of pathogens, analyze genomic signatures of resilience and make faster, more informed decisions across various health and environmental applications.

These are just two examples of how Genome BC is helping position BC at the forefront of bioengineering, data integration and sustainable innovation.

CO-CREATING THE FUTURE OF BIODIVERSITY

As the most biologically diverse province in Canada, British Columbia is home to a wide array of ecosystems, ranging from grasslands and glaciers to coastal wetlands. These ecosystems provide vital services, not only sustaining life through clean air and water, but also enriching society through cultural connection, tourism and recreation. Yet BC's biodiversity is at risk, facing compounding pressures from climate change, land-use change and invasive species.

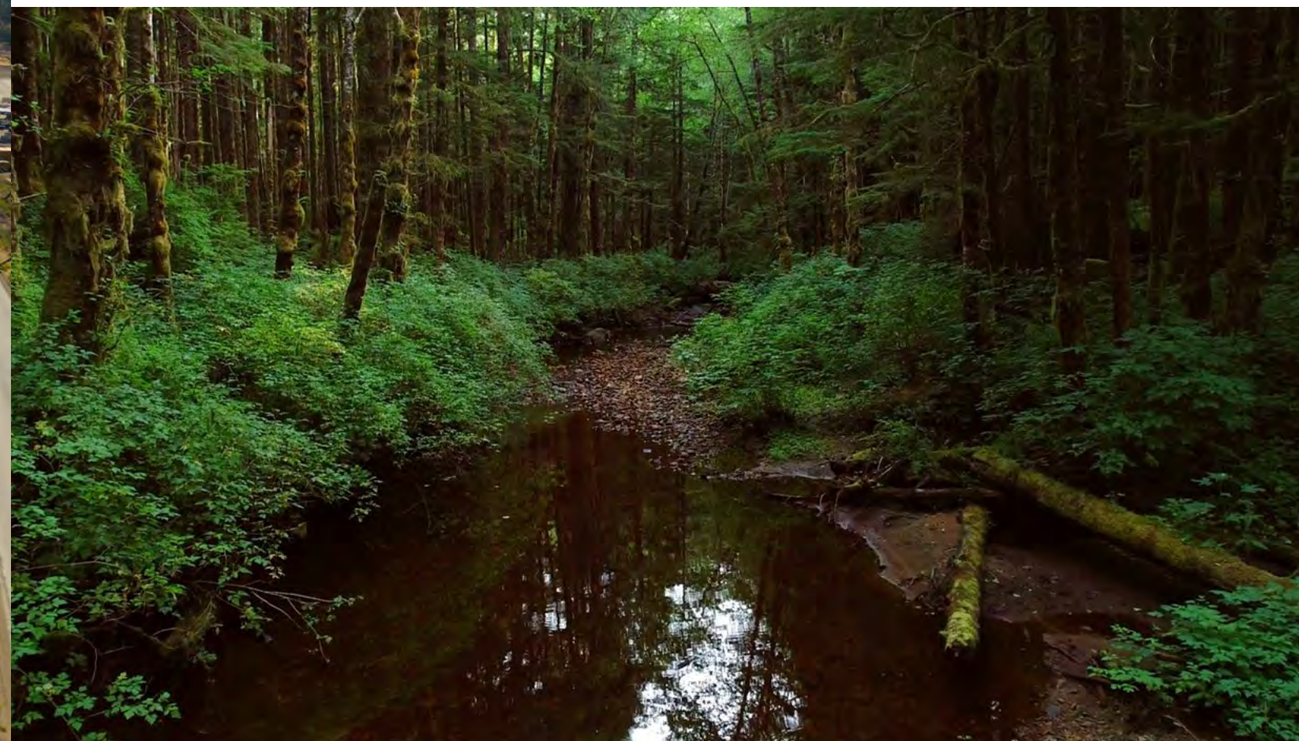
In response, Genome BC launched the Ideas Lab — a unique, in-person forum designed to tackle the complex, interdisciplinary challenge of biodiversity conservation in BC. Held in March 2025, the Ideas Lab brought together participants from government, Indigenous organizations, academia and conservation groups for a multi-day workshop that fostered collaboration across sectors and disciplines.

Participants worked in facilitated teams to explore the potential of genomic tools — such as environmental DNA and advanced sequencing — to address biodiversity loss and inform future-ready conservation strategies. Teams pitched their proposals for innovative, high-impact projects eligible for a share of $2 million in Genome BC funding.

The Ideas Lab was also one of the first public-facing initiatives of Genome BC's Policy, Research, and Innovation Lab (PRIL). PRIL is designed to accelerate the application of genomics to pressing environmental issues by supporting interdisciplinary research, building policy frameworks and fostering solution-oriented engagement.

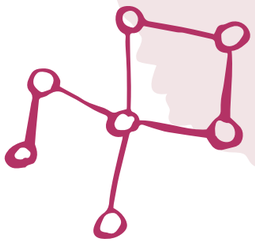
Focusing on real-world impact, the Ideas Lab emphasized community-driven approaches, equity and the integration of Traditional Knowledge with genomics and decision science. By linking innovation to implementation, the Ideas Lab exemplifies how BC can lead in aligning local action with global goals, including the Kunming-Montreal Global Biodiversity Framework.

IDEASLAB



FROM ENGAGEMENT TO EMPOWERMENT:

CONNECTING GENOMICS WITH SOCIETY



In a time when science is advancing more rapidly than public policy — and sometimes faster than public understanding — societal engagement is no longer optional. As genomics becomes more deeply woven into everyday life — from health care decisions to environmental sustainability — it's vital that the public not only understands the science but also feels invited into the conversation. Genome BC has long focused on building bridges between genomics and society, ensuring that advances in science are accessible, relevant and trusted by the people they're designed to serve.

Public engagement is not an afterthought at Genome BC. It is foundational to how we fund, frame and advance genomic science. Our goal is not only to educate but also to foster dialogue across disciplines, exploring how genomics intersects with ethics, health care, environmental stewardship, law, economics and public understanding.

This work begins in the classroom. Our Geneskool® program introduces students across BC to the real-world relevance of genomics through hands-on science workshops, interactive materials and activities aligned with BC's curriculum. Our long-standing partnership with Capilano University has recently expanded to include its new Squamish campus. New collaborations with Vancouver Island University, the University of the Fraser Valley and the Genome Sciences Centre have helped expand field-based learning and deepen ties with communities.

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HOW ONE GENESKOOL WORKSHOP CHANGED EVERYTHING

When students realize that genomics is connected to the food they eat or the health of their grandparents, you see the spark. It stops being 'science class' — it becomes real life.

Dr. Evelyn Sun still remembers the day everything clicked. She was in Grade 9, attending a Geneskool summer workshop, when she first extracted DNA. "It took me one day to realize this was what I wanted to do for the rest of my life," she says. "I owe my entire career to that one week."

Evelyn went on to earn a BSc in Biotechnology from the University of British Columbia (UBC) and the BC Institute of Technology (BCIT), followed by a PhD in Microbiology and Immunology. Today, she's an Assistant Professor of Teaching in the Microbiology and Immunology Department at UBC, helping students discover the same excitement she felt as a teen.

She's also designing new research-based courses that weave data science into microbiology. But for her, the core mission hasn't changed: "Make science real. Make it meaningful."

From student to scientist to educator, Evelyn's path is a powerful example of how early exposure can shape a lifetime.

Watch Dr. Evelyn Sun on how Geneskool inspired her path in science education.

"(Geneskool) is the program that inspired me to go into science and really primed the start of my career…I think the most powerful thing about the Geneskool program is that we inspire students to pursue careers in science and demystify it for them. They experience things hands-on and see what science can actually do."

Dr. Evelyn Sun, Assistant Professor of Teaching, Department of Microbiology and Immunology, UBC

A STAGE FOR BIG IDEAS: THE DON RIX DISTINGUISHED KEYNOTE ADDRESS

Every year, a few hundred people — students, scientists, business leaders and curious minds from all walks of life — gather for an expert lecture. However, this isn't just any talk.

The Don Rix Distinguished Keynote Address has become a flagship moment in BC's life sciences calendar. Named for Dr. Donald B. Rix, a passionate industry builder and advocate for genomics, the event brings global science leaders to Vancouver to share bold ideas and challenge assumptions.

Past speakers have explored everything from the future of medicine and the microbiome to biodiversity, digital health and Indigenous genomics. And the conversations don't end at the podium. Each keynote sparks smaller roundtables where ideas take root and new collaborations begin.

Now, more than a decade and a half in, this event isn't just a lecture. It's a reminder that science is a conversation and everyone has a place in it.

Experience the energy of BC's premier life sciences event through highlights from the 2024 Don Rix Distinguished Keynote Address with Dr. Sam Aparicio.

WHERE OUTREACH MEETS RESEARCH: GENESKOOL AND THE GENOME SCIENCES CENTRE TEAM UP

One of the newest additions to Geneskool's programming is a field trip to visit a real-world genomics lab at Canada's Michael Smith Genome Sciences Centre. This unique opportunity complements the range of classroom and community-based experiences already offered by Geneskool across BC.

These half-day field trips combine hands-on experiments with guided tours of one of Canada's leading sequencing centres. Students see how researchers are developing and deploying cutting-edge technologies to prevent and diagnose cancer and other diseases.

A Geneskool workshop held at the centre helps reinforce the underlying scientific concepts of genomics. Designed by scientists and educators, the experience connects classroom learning with real-world applications in health, environment and biotechnology.

By stepping into an active genomics facility, students gain a deeper understanding of the science and its impact on their lives and communities.

Watch Dr. Yussanne Ma, Director of Operations, Canada's Michael Smith Genome Sciences Centre, highlight the value of engaging students at the Genome Sciences Centre.

Continued from page 38

For those already in the workforce, we're helping professionals keep pace with genomics through targeted, applied training. The Genomics Education for Health Professionals initiative supports clinicians and health care providers, equipping them with the tools they need to interpret genomic results, integrate testing into practice and communicate clearly with patients and families. Equipping health professionals is key to making precision health equitable and effective across the province.

Genome BC also reaches the public through broader platforms. The Nice Genes! podcast brings curiosity, storytelling and humour to complex scientific themes. The Don Rix Distinguished Keynote Address features renowned speakers who challenge assumptions and explore how genomics shapes society. These efforts are not just about awareness — they create space for reflection and meaningful engagement.

Looking ahead, we are building on this foundation. New regional hubs will allow Geneskool to better reflect the diversity of BC's communities. Our outreach and engagement efforts will continue to evolve to meet people where they are — whether in classrooms, clinics or digital spaces. This expansion also includes new professional education offerings, such as eDNA training modules that equip industry and government end users with the tools to apply genomics in environmental monitoring and decision making.

Genomics will shape the future of health, food, energy and biodiversity in BC. But its success depends on a shared understanding of what's at stake and a shared commitment to getting it right. That is why Genome BC continues to invest in societal engagement as a driver of trust, inclusion and impact.

Step inside a real genomics lab. Discover how Geneskool's new field trip connect BC students with cutting edge science and real world research.

HONOURING INDIGENOUS RIGHTS AND KNOWLEDGE IN GENOMICS

Genome BC's Indigenous Peoples Engagement Framework sets out a path toward more equitable, respectful and reciprocal relationships with Indigenous communities. Backed by a $5 million action plan, this work is grounded in decolonization, not as a slogan, but as a process of structural change.

This means taking a hard look at how research is done, who benefits and who holds power. Genome BC has revised its internal policies to uphold Indigenous rights to data sovereignty, integrated cultural protocols across its work and appointed an Elder-in-Residence to guide ceremony, staff training and engagement. Staff and Board members have completed OCAP® (First Nations principles of ownership, control, access and possession) and decolonization training and participated in land-based learning with the host Nation where Genome BC's office is located.

The organization is also supporting greater Indigenous leadership in genomics through dedicated programs and new roles. A full-time Indigenous Pathways Coordinator now supports both SING Canada — a genomics training program for Indigenous scholars — and the emerging Indigenous Citizen Science Network. Genome BC has also launched Silent Genomes 2.0, building on prior work to improve diagnostic equity and healthcare outcomes for Indigenous peoples affected by rare genetic diseases.

But this work isn't just about policies or programs. It's also about presence — showing up, listening and building long term relationships. Genome BC continues to engage directly with Indigenous leaders and communities across BC and beyond, guided by the understanding that trust and shared stewardship are essential to advancing science that serves everyone.

Watch Elder Shelley Joseph's opening reflections at this year's Genomics Forum — part of Genome BC's ongoing work to honour Indigenous rights, knowledge and leadership in genomics.

BRINGING GENOMICS TO THE BEDSIDE: PRACTICAL TOOLS FOR CLINICAL USE

Genomics is transforming how we diagnose, treat and manage disease. But for many clinicians, knowing when and how to use genetic information isn't always straightforward.

The Genomics Education for Health Professionals (GEHP) initiative was developed to help address this gap, providing practical tools and targeted education to support informed decision making in real-world settings.

Led by Genome BC and developed with input from health authorities, educators and clinical teams, GEHP focuses on non-genetics providers working in primary care, acute care and specialty settings. Among the first projects to launch were a care pathway and enhanced clinic profiles on the Pathways BC platform, designed to facilitate easier referrals and test ordering. In parallel, as part of a pilot study in acute cardiac care, a short educational video and website were developed to help clinicians interpret genetic test results for familial hypercholesterolemia.

A separate initiative is piloting a genomics curriculum for nurse practitioners (NPs) at Thompson Rivers University — the first of its kind in Canada. NPs in practice can now access the two core modules and eight clinical modules as work continues on a sustainability plan.

Pharmacogenomics (PGx) is a growing area of interest, especially as more patients arrive with test results from private companies. A new project produced materials to help clinicians navigate patient questions about PGx testing. The GEHP resources include plain language conversation guides and background information on what PGx testing can and cannot do.

These efforts don't just raise awareness. They support better referrals, fewer delays and more confident clinical decisions, helping move genomics into everyday care across the province.

Learn more about NP-EDGE: *Nurse Practitioner Education in Genomics.*

Watch Dr. Lupin Battersby, Director, Knowledge Mobilization at Simon Fraser University, on why implementation science matters.

GENESKOOL® HUBS: LOCAL LEARNING, LIFELONG IMPACT

Every community has its own questions — Geneskool is creating space for students to ask them.

Since 2004, Genome BC's Geneskool program has worked to bring genomics to life for students across British Columbia. From CSI-style classroom workshops and summer science camps to portable "suitcase" exhibits and teacher training, Geneskool has evolved into the province's leading provider of grades 8-12 genomics education. Its programs are designed not only to spark curiosity but also to connect science learning with real world applications and future career pathways.

To date, Geneskool has reached over half of BC's communities — 51% of cities, district municipalities, towns, and villages — through a combination of hands-on programming, regional outreach and digital resources. Now, the program is entering a new phase.

Geneskool Hubs are being established to deepen local engagement and increase access to genomics education throughout the province. These regional hubs will deliver Geneskool's full suite of content — workshops, field trips, online tools and community events — in ways that reflect local cultures, regional priorities and student interests.

Each hub is rooted in partnership with post-secondary institutions across BC, including Thompson Rivers University, Vancouver Island University, Capilano University and the University of the Fraser Valley. These institutions serve as anchor partners, hosting regional hubs and providing access to lab spaces, faculty expertise and student mentorship. By rooting each hub within a local post-secondary setting, Geneskool is creating strong regional connections and introducing high school students to the learning environments, technologies and people that shape BC's life sciences sector.

Just as important, Geneskool Hubs will help educators bring curriculum to life with localized resources and expert support. Students will gain more opportunities to explore how genomics connects to health, food and environmental challenges in their own communities. This helps students see not only where science happens, but also how they might be part of it.

By supporting localized delivery while maintaining province-wide reach, Geneskool Hubs represent a new model for science education in BC — one rooted in access, relevance and community.

Award-winning and always curious, *Nice Genes!* is Genome BC's podcast exploring the science shaping our health, environment and future. Listen as Dr. Kaylee Byers dives into the big questions behind genomics.

2024/25 PROJECTS AND FUNDING

Genome BC leads genomics innovation on Canada's West Coast, facilitating the responsible integration of genomics into society. Since 2000, Genome BC has attracted over $1.1 billion in direct co-investment to the province, which has contributed to funding more than 600 genomics research, technology platforms and innovation initiatives.

AGRIFOOD & AGRICULTURE
65 Projects
$97M

DATA SCIENCE & TECHNOLOGY
91 Projects
$234M

FISHERIES & AQUACULTURE
40 Projects
$78M

FORESTRY
39 Projects
$112M

ENVIRONMENT
37 Projects
$46M

HEALTH
316 Projects
$727M

ENERGY & MINING
20 Projects
$56M

SOCIO-ECONOMIC IMPACT

Economic Impact to BC's GDP**
$4.9B

Jobs Created**
51,400

Partnerships
1,337

Scientific Publications
4,461

Companies Advanced
224

Patent Applications†
895

Direct Co-investment Attracted
$1.1B

301 Applications Demonstrated, of which 192 are Products and Services Advanced

Figures are cumulative as of March 31, 2025.
** Economic and Social Impact Analysis, MNP LLP, 2022.
† All countries including provisional.

EDUCATION

GENESKOOL®

51%* **of all BC communities (cities, district municipalities, towns and villages) are reached by Genome BC Geneskool programs**

3,967
Students Engaged

30
Teachers Engaged

1,411
Face-to-Face Volunteer Hours

6,287
Education Resource Downloads

93
Net Promoter Score

15
Partnership Activations

PUBLIC ENGAGEMENT AND OUTREACH

97,239
Website Sessions

1,146,608
Media Views and Podcast Listens

1,311
Visitors to Corporate Events

476
Unique Media Stories

66,963
Total Followers

253,835
Total Engagements

* Total is cumulative since Genome BC's inception in 2000.

All figures represent activities from **April 1, 2024 to March 31, 2025** unless noted otherwise.

MESSAGE FROM THE **PRESIDENT AND CEO**

This year marks 25 years since Genome BC was founded — a milestone to recognize how far we've come and the bold potential ahead for British Columbia. What began as cutting-edge science has become a transformative driver for health innovation, environmental stewardship and BC's economy. From the beginning, Genome BC has championed leading research and innovation, ensuring that BC doesn't just keep up in a rapidly evolving field, but leads. This report highlights BC's leadership in genomics.

I would like to thank the Government of British Columbia, Genome Canada and our many collaborators for their ongoing partnership and support.

BC researchers are using genomics to personalize cancer care, improve transplant outcomes and uncover the genetic drivers of hard-to-treat diseases. They are restoring kelp forests, tracking biodiversity loss and helping protect forests and farms from the impacts of climate change. Across these diverse sectors, a common thread emerges: genomic science is delivering practical solutions to complex challenges and it's doing so through the kinds of partnerships that make innovation stick.

Genome BC is shaping the future of life sciences in BC through our investment in world class research and innovations addressing real world challenges. Over the past year, we have supported more than 90 active projects, expanded cross-sector collaborations in public health, agriculture, clean technology and Indigenous led research and invested in the technology platforms that help translate genomic research into practical tools for health, the environment and the economy.

It also means building partnerships to address BC's priorities. We've worked alongside Indigenous communities to support data sovereignty, launch the Indigenous Background Variant Library and embed equity across rare disease diagnostics. With end-users from industry and government, we're developing real time surveillance systems to address threats to human health and our food supply and advancing biomining solutions to strengthen BC's competitiveness in critical minerals. We are also creating Geneskool Hubs across the province with our education partners to inspire the next generation of scientists and innovators.

Genomics is future proofing BC's key economic sectors, fuelling resilience and growth across food security, mining and forestry. We are scaling our support for commercialization, turning BC born innovations into jobs, exports and long term value. And through our new Policy, Research and Innovation Lab, we're helping to align science, policy and practice in areas where BC can lead globally.

I would also like to acknowledge Genome BC's Board of Directors and staff for their leadership and commitment to delivering meaningful results for BC.

British Columbia has what it takes to lead in the life sciences: visionary research, dynamic talent and the drive to solve problems that matter. Genome BC is proud to help make that leadership real.

SUZANNE GILL

MESSAGE FROM THE **BOARD CHAIR**

As we celebrate 25 years of Genome BC, it's clear that our greatest strength has always been collaboration. From the beginning, Genome BC has brought together researchers, companies, governments and communities to ensure that applications of genomic science applications deliver practical, real world benefits.

Today, we are seeing those benefits in every sector. Genomics is guiding safer and more personalized health care, supporting Indigenous led approaches to health equity, helping farmers and food producers respond to changing conditions and equipping environmental stewards with the tools they need to monitor and protect BC's natural ecosystems.

This transformation didn't happen by chance. It happened because of the deep partnerships Genome BC has fostered across sectors and disciplines. The trust, knowledge and shared purpose built over the past 25 years are the foundation of our future.

And the opportunity ahead is significant. Globally, we are entering a new era of investment in science and technology. There is a growing recognition among governments, industries and international partners that the life sciences are crucial to addressing some of the world's most complex challenges. British Columbia and Canada are exceptionally well positioned to lead. We have world class researchers, a growing innovation ecosystem and a strong track record of translating discoveries into applications. Genome BC is proud to be part of that advantage and we are committed to scaling it.

As Chair of the Board, I have the privilege of working with a group of directors who bring diverse expertise and a deep commitment to the public good. I extend my thanks to each of them for their service. I also want to recognize our outstanding management team and staff, whose dedication and strategic foresight are helping build a stronger, more resilient future.

Finally, on behalf of the Board, I extend our sincere thanks to the Province of British Columbia and our many funding and research partners. Your continued support makes this work possible.

As we look to the future, Genome BC will continue to be a force for innovation and impact, helping British Columbia lead, not just at home, but on the world stage.

KAUSAR N. SAMLI

INDEPENDENT **AUDITOR'S REPORT**

TO THE BOARD OF DIRECTORS OF GENOME BRITISH COLUMBIA

OPINION

We have audited the financial statements of Genome British Columbia (the "Entity"), which comprise:

- the Statement of Financial Position as at March 31, 2025
- the Statement of Operations and Changes in Net Assets for the year then ended
- the Statement of Cash Flows for the year then ended
- and Notes to 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 Entity as at March 31, 2025, and its results of operations 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 Entity 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.

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 Entity'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 Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity'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 scepticism 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 Entity's internal control.
- 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 Entity'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 Entity 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.

KPMG LLP

CHARTERED PROFESSIONAL ACCOUNTANTS
Vancouver, Canada
June 6, 2025

FINANCIAL **STATEMENTS**

Statement of Financial Position (Expressed in Canadian Dollars)
March 31, 2025, with comparative information for 2024

	2025	2024
Assets		
Current assets:		
Cash	$ **1,129,644**	$ 638,915
Short-term investments (notes 3 and 4)	**148,663,723**	148,505,523
Other receivables (note 5)	**93,282**	790,298
Project advances	**1,387,605**	2,573,917
Prepaid expenses	**220,524**	281,392
	151,494,778	152,790,045
Tangible capital assets (note 6)	**747,354**	896,871
	$ **152,242,132**	$ 153,686,916
Liabilities and Net Assets		
Current liabilities:		
Accounts payable and accrued liabilities (note 7)	$ **7,565,719**	$ 5,669,812
Deferred lease inducement	**189,354**	265,096
Deferred contributions:		
Future expenses (note 8)	**143,739,705**	146,855,137
Capital assets (note 9)	**747,354**	896,871
	152,242,132	153,686,916
Net assets	**–**	–
	$ **152,242,132**	$ 153,686,916

Commitments (note 10)
Subsequent events (note 3)
See accompanying notes to financial statements.

Approved on behalf of the Board:

KAUSAR N. SAMLI
Director

RON GILL
Director

Statement of Operations and Changes in Net Assets (Expressed in Canadian Dollars)
Year ended March 31, 2025, with comparative information for 2024

	2025	2024
Revenues:		
Amortization of deferred contributions related to future expenses (note 8)	**$ 12,611,003**	$ 13,174,317
Amortization of deferred contributions related to tangible capital assets (note 9)	**340,031**	404,062
Investment income (note 3)	**14,683,086**	15,293,320
Recoveries from commercialization projects (note 4)	**105,270**	845,605
	27,739,390	29,717,304
Expenses:		
Corporate programs and management	**10,458,005**	9,963,505
Project expenditures	**16,941,354**	19,349,737
Depreciation	**340,031**	404,062
	27,739,390	29,717,304
Excess of revenues over expenses, being net assets, beginning and end of year	**$ –**	$ –

See accompanying notes to financial statements.

Statement of Cash Flows (Expressed in Canadian Dollars)
Year ended March 31, 2025, with comparative information for 2024

	2025	2024
Cash provided by (used in):		
Operations:		
Excess of revenues over expenses	**$ –**	$ –
Items not involving cash:		
Depreciation	**340,031**	404,062
Amortization of deferred contributions related to future expenses (note 8)	**(12,611,003)**	(13,174,317)
Amortization of deferred contributions related to tangible capital assets (note 9)	**(340,031)**	(404,062)
Amortization of deferred lease inducement	**(75,742)**	(75,742)
Unrealized (gains) on short-term investments	**(546,748)**	(7,664,037)
Realized (gains) losses on short-term investments	**(1,571,131)**	255,420
Funding (note 8)	**9,686,085**	8,298,106
Changes in operating assets and liabilities:		
Other receivables	**697,016**	(661,514)
Project advances	**1,186,312**	2,026
Prepaid expenses	**60,868**	(90,399)
Accounts payable and accrued liabilities	**1,895,907**	(639,428)
	(1,278,436)	(13,749,885)
Investments:		
Proceeds from sale of short-term investments	**19,478,448**	20,480,678
Purchase of short-term investments	**(17,518,769)**	(7,739,743)
Purchase of tangible capital assets	**(190,514)**	(27,756)
	1,769,165	12,713,179
Increase (decrease) in cash	**490,729**	(1,036,706)
Cash, beginning of year	**638,915**	1,675,621
Cash, end of year	**$ 1,129,644**	$ 638,915

See accompanying notes to financial statements.

NOTES TO FINANCIAL **STATEMENTS**

1. Operations:

Genome British Columbia (the "Corporation") was incorporated on July 31, 2000 under the *Canada Corporations Act* and continued under the *Canada Not-For-Profit Corporations Act* as a not-for-profit organization and is exempt from income and capital taxes. The Corporation has the following objectives:

(a) develop and establish a coordinated approach and integrated strategy in British Columbia to enable British Columbia to become a world leader in selected areas of genomic and proteomic research and innovation, including agriculture, aquaculture, environment, forestry and human health, among others, by bringing together universities, research hospitals, other research centres and industry, as well as government and private agencies for the benefit of British Columbia;

(b) participate in national approaches and strategies to strengthen genomics research capabilities in Canada for the benefit of all Canadians;

(c) maintain a genome centre in British Columbia to ensure that researchers can undertake research and development projects offering significant socio-economic benefits to British Columbia and Canada, to provide access to necessary equipment and facilities, and to provide opportunities for training of scientists and technologists;

(d) establish a contractual relationship with Genome Canada, and contractual and collaborative relationships with others (including private and voluntary sectors and federal and provincial governments) in order to provide financial and personnel resources for the Corporation;

(e) address public concerns about genomics research through the organization of intellectual resources regarding ethical, environmental, legal and societal issues related to genomics;

(f) increase public awareness of the need for genomics research and of the uses and implications of the results of such research, thereby helping Canadians understand the relative risks and rewards of genomics;

(g) leverage the organization's speed and agility to provide emerging issues funding that enables researchers and innovators to address previously unforeseen challenges in British Columbia; and

(h) support entrepreneurial, commercialization and innovation activities that help to grow the life sciences sector in British Columbia.

2. Significant accounting policies:

(a) Basis of presentation:
These financial statements have been prepared in accordance with Canadian Accounting Standards for Not-for-Profit Organizations ("Accounting Standards for NPO's").

(b) Short-term investments:
Short-term investments are recorded at fair value with gains and losses recorded in the statement of operations and changes in net assets in the period in which they arise. Short-term investments are comprised of a portfolio of funds managed by investment professionals.

(c) Project advances:
Project advances are comprised of amounts provided by the Corporation to approved research projects and platforms, which have not yet been spent.

(d) Tangible capital assets:
Tangible capital assets are initially recorded at cost. Depreciation is provided using the straight-line method as follows:

Asset	Years
Furniture and fixtures	5
Computers and software	3
Telecommunications equipment	5
Leasehold improvements	Remaining lease term

(e) Revenue recognition:
The Corporation follows the deferral method of accounting for contributions.

Externally restricted contributions:
Deferred contributions related to expenses of future periods represent unspent externally restricted funding and related investment income, which are for the purposes of providing funding to eligible recipients and the payment of operating and capital expenditures in future periods. Externally restricted contributions for expenses of a future period and related investment income are deferred and recognized as revenue in the year in which the related expenses are incurred. Externally restricted contributions for the purchase of capital assets are initially recorded as deferred contributions related to future expenses, and transfer to and recorded as deferred contributions related to tangible capital assets when the amounts have been spent on tangible capital assets. Deferred contributions related to tangible capital assets are amortized to revenue in the statement of operations and changes in net assets using the same methods and amortization rates of the related tangible capital assets.

Unrestricted contributions:
Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

2. Significant accounting policies (continued):

(f) Commercialization projects:
The Corporation seeks to drive commercialization through partnerships with early-stage companies. The Industry Innovation Program (the "Program") was established for the purpose of investing in companies involved in early-stage research and development, where technologies have not yet reached commercialization. The value of any underlying security on these investments is limited. The Corporation expenses all amounts invested in these projects as advanced. Recovery of amounts invested are recorded as revenue when the funds are received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. The Program balance consists of deferred contributions for investment, interest and royalties earned, gains less losses on investments and recoveries from investments less new investment.

(g) Use of estimates:
The preparation of financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses. Areas requiring the use of management's estimates relate to the determination of accruals for project expenditures and the recoverable amounts of investments in commercialization projects. Accordingly, actual results could differ from these estimates.

(h) Valuation of long-lived assets:
Management reviews the carrying amount of tangible capital assets for impairment whenever events or changes in circumstances indicate that the asset no longer contributes to the Corporation's ability to provide services, or that the value of future economic benefits or service potential associated with the asset is less than its carrying amount. If such conditions exist, an impairment loss is measured and recorded in the statement of operations and changes in net assets at the amount by which the carrying amount of the tangible capital asset exceeds its fair value or replacement cost.

(i) Deferred lease inducement:
Tenant inducement received associated with leased premises is deferred and amortized on a straight-line basis over the term of the lease.

(j) Related foundation:
The financial information of Genome British Columbia Foundation, a not-for-profit entity that is commonly controlled by the Corporation, is not consolidated but is disclosed in these financial statements.

(k) Financial instruments:
Financial instruments are recorded at fair value on initial recognition. All financial instruments are subsequently measured at cost or amortized cost, unless management has elected to carry the instruments at fair value. The Corporation has elected to carry its short-term investments at fair value.

At period-end, the Corporation assesses whether there are any indications that a financial asset measured at cost or amortized cost may be impaired. Financial assets measured at cost include funding receivable and other receivables. If there is an indicator of impairment, the Corporation determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the highest of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount the Corporation expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future period, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial impairment charge.

(l) Foreign exchange:
The Corporation's monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars using exchange rates in effect at the statement of financial position date. Revenue and expense items are translated at the rate of exchange prevailing on the date of the transaction. Foreign exchange gains and losses are included in the statement of operations and changes in net assets.

3. Short-term investments:

The Board of Directors has overall responsibility for the oversight of the Corporation's short-term investments. The Board has established an Investment Committee, which is responsible for developing and monitoring the Corporation's investment policy. The overall objectives of the Corporation's investment policy are to achieve security of principal that ensures a return of the capital invested, to maintain the liquidity necessary to meet the cash flow requirements of the Corporation and to maximize the rate of return without affecting liquidity or incurring undue risk.

The Corporation's short-term investments are comprised of a portfolio of funds and other investments. The portfolio consists of investments in fixed income funds and Canadian and international equity funds. The portfolio is managed by independent investment professionals in accordance with the Corporation's investment policy. All short-term investments are measured at fair value. The Corporation's short-term investments are subject to interest rate, market and liquidity risks.

Both the risk of significant changes in interest rates and the risk of significant changes in market prices are mitigated by the Corporation's policy that permits its portfolio managers to change the level of investment in the funds at short notice and the fact that interest earned on the portfolio is reinvested monthly at prevailing rates. The Corporation limits exposure to liquid asset credit risk through maintaining its short-term investments with high-credit quality financial institutions.

3. Short-term investments (continued):

The Corporation's short-term investments are as follows:

		2025		2024
Fixed income funds	$	**86,527,092**	$	87,477,777
Canadian equity funds		**14,080,989**		15,586,203
US equity funds		**27,312,934**		30,119,378
International equity funds		**15,563,060**		15,322,165
Premium savings account		**5,179,648**		–
	$	**148,663,723**	$	148,505,523

The fixed income funds invest in a mixture of bonds and debentures with a minimum average credit rating of BBB. The equity funds invest in a mixture of Canadian, U.S. and international equities. Fair values of the Corporation's portfolio investments are based on quoted bid price at the reporting date.

The investment income is comprised of the following:

		2025		2024
Interest income	$	**12,403,772**	$	7,823,302
Realized gains (losses)		**1,571,131**		(255,420)
Unrealized gains		**546,748**		7,664,037
Other		**161,435**		61,401
	$	**14,683,086**	$	15,293,320

On April 28, 2025 the Corporation received $17,500,000 from the Province of British Columbia to support its current strategic plan for 2023–2026.

4. Industry Innovation Program:

		2025		2024
Balance, beginning of year	$	**11,123,015**	$	10,645,410
Funding from Province of British Columbia		**–**		–
Recoveries from commercialization projects		**105,270**		845,605
Investments in commercialization projects		**(2,000,000)**		(368,000)
Balance, end of year	$	**9,228,285**	$	11,123,015

Changes in investing activities since inception of the Program are as follows:

	Investment made (recovered)		Amount
Total investment fund		$	20,000,000
Investments made	21		(18,712,500)
Investments recovered	(6)		4,815,967
Interest received			881,687
Royalties received			2,243,131
Balance, end of year		$	9,228,285

The program balance of $9,228,285 is included in deferred contributions and is invested with the Corporation's other short-term investments.

Investments in commercialization projects consist of loans which are secured by a general security interest in all assets of the companies. Interest accrues on the outstanding balances at various rates from 0% to prime plus 3% compounded annually. Repayment of principal and accrued interest over a 2 year period commences after the earlier of (a) an agreed annual gross revenue threshold; (b) a change of control of the company; or (c) a date that is 4 years from the date of the loan was advanced. The Corporation may also receive royalty and other payments contingent upon the success of the investee's commercialization efforts and the balance of the loan outstanding.

In April, 2024, a royalty payment of $750,000 was recovered from an investee company.

In June, 2024, an amount of $105,270 was recovered from an investee company. The amount recovered included the loan principal and interest accrued in accordance with the loan agreement.

5. Other receivables:

		2025		2024
Sales tax	**$**	**39,304**	$	36,066
Royalties and other accounts receivable		**53,978**		754,232
	$	**93,282**	$	790,298

6. Tangible capital assets:

March 31, 2025		**Cost**		**Accumulated depreciation**		**Net book value**
Furniture and fixtures	**$**	**313,082**	**$**	**265,486**	**$**	**47,596**
Computers and software		**715,406**		**489,145**		**226,261**
Telecommunications equipment		**31,575**		**25,989**		**5,586**
Leasehold improvements		**1,216,783**		**748,872**		**467,911**
	$	**2,276,846**	**$**	**1,529,492**	**$**	**747,354**

March 31, 2024		Cost		Accumulated depreciation		Net book value
Furniture and fixtures	$	350,720	$	241,763	$	108,957
Computers and software		596,547		473,379		123,168
Telecommunications equipment		31,575		21,228		10,347
Leasehold improvements		1,216,783		562,384		654,399
	$	2,195,625	$	1,298,754	$	896,871

During the year ended March 31, 2025, fully amortized capital assets of $ 109,293 (March 31, 2024 – $16,337) were removed from the Corporation's accounting records.

7. Accounts payable and accrued liabilities:

		2025		2024
Accounts payable	**$**	**496,264**	$	304,214
Accrued liabilities – projects		**5,787,839**		4,195,648
Accrued liabilities – others		**1,281,616**		1,169,950
	$	**7,565,719**	$	5,669,812

Included in accrued liabilities as at March 31, 2025 are government remittances payable of $ 33,232 (March 31, 2024 – $31,467) relating to payroll and health taxes.

8. Deferred contributions related to future expenses:

The Corporation receives funding from Genome Canada, the Province of British Columbia and from other sources to be held, administered and distributed in accordance with the related funding agreements between the Corporation and other parties (note 10).

Deferred contributions related to expenses of future periods represent these unspent externally restricted funds, which are for the purposes of providing funding to eligible recipients and the payment of operating and capital expenditures in future periods. The changes in the deferred contributions balance for the year are as follows:

		2025		2024
Balance, beginning of year	**$**	**146,855,137**	$	151,759,104
Funding received or receivable during the year:				
Genome Canada		**9,686,085**		8,298,106
		156,541,222		160,057,210
Less:				
Amount amortized to revenue		**(12,611,003)**		(13,174,317)
Amount transferred to fund capital assets purchased during the year (note 9)		**(190,514)**		(27,756)
		(12,801,517)		(13,202,073)
Balance, end of year	**$**	**143,739,705**	$	146,855,137

9. Deferred contributions related to capital assets:

Deferred contributions related to capital assets represent the unamortized amount of contributions received for the purchase of capital assets. The amortization of such contributions is recorded as revenue in the statement of operations and changes in net assets.

The changes in the deferred contributions related to capital assets balance for the year are as follows:

		2025		2024
Balance, beginning of year	**$**	**896,871**	$	1,273,177
Funding spent on capital asset purchases		**190,514**		27,756
		1,087,385		1,300,933
Less amount amortized to revenue		**(340,031)**		(404,062)
Balance, end of year	**$**	**747,354**	$	896,871

10. Commitments:

(a) Funding:

(i) Genome Canada:
The Corporation enters into funding agreements with Genome Canada (the "agreements"). In accordance with these agreements the Corporation secures on an on-going basis cash or cash equivalent commitments from other parties representing at least 50% of the total costs of the projects covered by the agreements. In addition, Genome Canada agrees to disburse an amount only up to the amount of the formal commitments from other parties. However, Genome Canada may provide funding notwithstanding the fact that formal commitments from other parties have not yet been secured. Genome Canada has also agreed that funds, provided in good faith, where commitments from other parties have not yet been secured, shall not be reimbursable to Genome Canada.

In accordance with each respective agreement, the Corporation has agreed, among other things, to provide Genome Canada with a co-funding plan for each project. A co-funding plan for each project has been provided to and accepted by Genome Canada.

The list of active research funding agreements with Genome Canada by program, and the supporting commitments from other parties for the active research projects covered by these agreements, as at March 31, 2025, is as follows:

Funding agreement description		**Support commitment**
Genomic Applications Partnership Program	$	27,612,695
2017 Large-Scale Applied Research Project Competition		19,405,684
2018 Large-Scale Applied Research Project Competition		3,445,880
2020 Large-Scale Applied Research Project Competition		12,274,328
2023 Climate-Smart Agriculture and Food Systems		8,135,333
2024 eDNA Surveillance Program		1,914,674
Other		2,748,337
Total	$	75,536,931

(ii) Province of British Columbia:
In accordance with an agreement for funding received, dated March 30, 2015, and updated on March 24, 2017, March 29, 2018 and March 26, 2019, the Corporation received funding of $85,000,000 to support its 2015 to 2020 strategic plan: Powering British Columbia's Bioeconomy. In accordance with the Agreement, the Corporation completed and submitted to the funder an accountability framework that included robust and detailed performance metrics on November 27, 2015. The Corporation launched its Industry Innovation Program in October, 2015 as part of its commercialization strategy. Included as part of that strategy, and contingent upon the success thereof, is the intent to repay the Province $10,800,000 over the next decade (note 4).

(b) Project commitments:
In the normal course of business, the Corporation enters into Collaborative Research Agreements for the completion of milestone based research projects. Detailed below is the estimated remaining commitment of the Corporation's funds relating to active research programs. The Corporation typically provides co-funding to research projects, whereby its funds are combined with funds from other sources to provide the total project award amount. Funds provided directly to the research institution by third parties are included in the total award amount shown in the table below.

10. Commitments (continued):

(b) Project commitments (continued):

The total award amount and estimated remaining commitment of the Corporation by program as of March 31, 2025 is as follows:

Approved programs	Total award amount	Estimated remaining Corporation commitment
Current programs:		
2015 Large-Scale Applied Research Project Competition	$ 32,350,187	$ 18,879
2017 Large-Scale Applied Research Project Competition	63,335,939	1,491,882
2018 Large-Scale Applied Research Project Competition	10,716,563	865,550
2020 Large-Scale Applied Research Project Competition	19,478,294	1,259,326
Genomic Applications Partnership Program	60,691,741	3,461,825
Climate-Smart Agriculture and Food Systems	13,351,621	2,224,011
eDNA Surveillance Program	2,889,674	487,500
Genome Canada Pilot Projects	12,735,680	401,777
2017 Genomics Technology Platforms	56,835,039	1,456,386
2022 Technology Development	2,782,333	277,333
Applied Genomics Consortium Program	31,193,623	25,530
Transplantation (CIHR)	4,000,000	50,000
Canadian Rare Diseases (CIHR)	4,009,250	–
Societal Issues	705,333	30,000
GeneSolve Program	15,416,235	2,890,388
Genome British Columbia Pilot Programs	31,522,135	2,964,480
Marathon of Hope	20,000,000	35,179
Genomic Innovation for Regenerative Agriculture, Food and Fisheries	1,836,685	518,044
Entrepreneurship Partnership Program	25,718,390	290,000
Pilot Innovation Fund	1,495,123	25,000
Translational Innovation Fund	947,813	844,218
	412,011,658	19,617,308
Closed programs:		
Genome Canada Programs	426,669,985	–
Genome British Columbia Programs	130,550,971	–
Science and Technology Platforms	79,061,868	–
Programs with Other Partners	9,735,171	–
COVID-19 Programs	7,505,134	–
Pacific Economic Development Canada Programs	21,113,088	–
Canadian Institutes of Health Research Programs	31,722,556	–
Brain Canada Programs	18,123,152	–
	724,481,925	–
Total	$ 1,136,493,583	$ 19,617,308

(c) Operating lease:

The Corporation has entered into an operating lease agreement for office premises which expires on September 30, 2027. Minimum payments for the next three fiscal years ending March 31 are as follows:

2026	$ 700,935
2027	700,935
2028	350,467
Total	$ 1,752,337

11. Genome British Columbia Foundation:

Genome British Columbia Foundation (the "Foundation") is a registered charity established to promote and foster life sciences research for the public benefit by coordinating, sponsoring and carrying educational conferences, seminars, workshops and symposiums. The Foundation is exempt from income and capital taxes.

The majority of the Foundation's Board of Directors are also members of the Corporation, and as such, the Corporation controls the Foundation. In accordance with the CPA Canada Handbook Section 4450, the Corporation has chosen not to consolidate the Foundation but has followed the disclosure requirements. The Corporation has no economic interest in the Foundation.

Financial information of the Foundation as at March 31, 2025 and March 31, 2024 and for the years ended March 31, 2025 and March 31, 2024 are as follows:

		2025		2024
Cash	**$**	**6,391**	$	6,401
Deferred contributions		**(6,391)**		(6,401)
Net assets	**$**	**–**	$	–
Revenues	**$**	**10**	$	–
Expenses		**(10)**		–
	$	**–**	$	–
Cash provided by (used in):				
Operations	**$**	**(10)**	$	1
Net change in cash	**$**	**(10)**	$	1

There are no significant differences in accounting policies between the Foundation and the Corporation.

12. Financial risks:

(a) Liquidity risk:

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

(b) Credit risk:

Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a financial loss. The Corporation deals with creditworthy counterparties to mitigate the risk of financial loss from defaults. The Corporation is also exposed to credit risk with respect to its cash investments held. The risk of loss is considered low as all cash is held by one Canadian chartered bank and fixed income investments are highly liquid and are invested in highly rated corporate bonds.

(c) Market risk:

Market risk is the risk that changes in market prices, as a result of changes in foreign exchange rates, interest rates and equity prices, will affect the Corporation's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while maximizing the return.

(i) Currency risk:

Investments in foreign securities are exposed to currency risk due to fluctuations in foreign exchange rates. The Corporation is exposed to currency risk on its foreign currencies held within its cash accounts and through its investments in international equity funds.

(ii) Interest rate risk:

Interest rate risk is the risk that the fair value of the Corporation's investments will fluctuate due to changes in market interest rates.

(iii) Other price risk:

Other price risk relates to the possibility that the fair value of future cash flows from financial instruments will change due to market fluctuations (other than due to currency or interest rate movements). The diversification across various asset classes is designed to decrease the volatility of portfolio returns.

There have been no significant changes to the risk exposures during the year ended March 31, 2025.

CORPORATE **INFORMATION**

Board of Directors

(for the fiscal year ended March 31, 2025)

Kausar N. Samli
Chair
Executive, Expert, Consultant

Judi Beck
Vice Chair, Executive, (Retired)
Natural Resources Canada

Ron Gill
Partner
PricewaterhouseCoopers LLP

Suzanne Gill
President and Chief Executive Officer
Genome British Columbia

Janet Grove
Partner, Head of Canadian Life Sciences and Healthcare Group
Norton Rose Fulbright Canada LLP

Margaret (Peggy) Johnston
Independent Consultant
Former Senior Program Officer
Bill & Melinda Gates Foundation

Mel Krajden
Medical Microbiologist Researcher
BC Centre for Disease Control

Nadja Kunz
Canada Research Chair in Mine Water Management and Stewardship
University of British Columbia

Raymond W. Lam
Professor and BC Leadership Chair in Depression Research
University of British Columbia

Nancy Olewiler
Director
School of Public Policy
Simon Fraser University

Dick Vollet
Senior Executive, Retired

Steven Zicherman
Director, Equity Analyst
Vice President, Research, Director,
Odlum Brown Limited

Board Observers

Rob Annan
President and Chief Executive Officer
Genome Canada

Ian Rongve
Assistant Deputy Minister
Strategy and Innovation Division
Ministry of Health,
Province of British Columbia

Management

Suzanne Gill
President and Chief Executive Officer

Tony Brooks
Chief Financial Officer and VP
Entrepreneurship & Commercialization

Federica Di Palma
Chief Scientific Officer and Vice President,
Research and Innovation

Sally Greenwood
Vice President, Communications
and Societal Engagement

Wes Peterson
Vice President, Corporate Development

Auditors

KPMG LLP
Vancouver, BC

Legal Counsel

Richards Buell Sutton LLP
Vancouver, BC

Thanks to our Funders

Genome BC thanks its funding partners, including the Province of British Columbia, the Government of Canada through Genome Canada, Pacific Economic Development Canada (PacifiCan) and project co-funders.

Acknowledgements

We also thank all those who assisted in developing this annual report, including the management and staff at Genome BC, Genome BC funded researchers and the Carter Hales Design Lab team.