Ontario life sciences companies are producing astounding innovations across our sector. Read about how their businesses are fuelling our economy – and how we can help them reach their full potential to accelerate life sciences into a major economic powerhouse.
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At adMare BioInnovations, we recognize that this is a crucial time for our sector. As a pan-Canadian organization that collaborates closely with key industry players, venture capital, research, academic, and public policy interested parties, our primary objectives are to build companies, ecosystems, and talent with the ultimate goal of positioning Canada as a global leader in the field of life sciences.

WHAT ARE YOU DOING THAT'S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY'S WALLS?

With a strong track record of globally competitive scientific discovery, Canadian life sciences are primed to lead the world. To make this a reality, adMare BioInnovations uses our scientific and commercial expertise, specialized R&D infrastructure, and seed capital to build strong life sciences companies, develop robust ecosystems, and foster industry-ready talent. We reinvest our returns into the Canadian industry to ensure its long-term sustainability. adMare currently has 29 portfolio companies that have attracted $2.3 billion of risk capital, have a combined value of $4 billion, and have created over 1,000 jobs in Canada.

MAJOR INVESTMENTS / ACQUISITIONS: In 2023, adMare maintained its support of Specific Biologics and Forus Therapeutics in Toronto. Our investment portfolio generated two successful exits: the BELLUS Health acquisition by GSK and the Inversago Pharma acquisition by Novo Nordisk.

KEY WINS

adMare BioInnovations has achieved several notable successes, driven by our commitment to advancing Canada’s life sciences sector. As of this year, we have created 29 companies that have reached important commercial and clinical milestones and attracted $2.3 billion in actual venture capital. These companies are worth $4 billion and have over 1,000 employees. Our physical facilities in Vancouver and Montreal, spanning 40,000 and 150,000 sq. ft., respectively, house our own labs as well as 25 companies of varying sizes. The adMare Academy has trained over 500 young scientists, and 94% of them are now working in the industry.

With the inauguration of our new Toronto office located at the MaRS Discovery Centre in July 2022, we were proud to increase our presence in Ontario and connect with this thriving life science hub. We partnered with MaRS to launch the MaRS-adMare Tx Accelerator in Ontario, aiming at accelerating the growth of early-stage ventures.

These achievements result from a combination of factors, including visionary leadership, a robust network of partners, and a commitment to fostering a culture of innovation. By harnessing these elements, adMare BioInnovations continues to drive advancements in the biotech and life sciences sectors, positioning Canada as a hub for innovation and growth.

LOOKING FORWARD

adMare BioInnovations is committed to driving innovation in Canada’s life sciences sector. Our primary goals include:

• Accelerating Drug Development and Company Creation: We aim to continue advancing promising drug candidates from discovery through development, focusing on translating research into life-saving therapies and novel companies.

• Fostering Collaboration: We seek to strengthen partnerships with academic institutions, pharmaceutical companies, and government agencies to create a collaborative ecosystem that nurtures groundbreaking research and innovation.

• Talent Development: We strive to develop the critical talent Canadian companies need to succeed today and in the future.

Looking ahead, we maintain unwavering confidence in our ability to fulfill our mission and create value for all our partners. We will continue to build on this momentum and seize this generational moment to further strengthen the life sciences industry by working in collaboration with our partners, taking concerted strategic action, and investing our resources in industry-boosting programs.
Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing, and delivering innovative human therapeutics. This approach begins by using tools like advanced human genetics to unravel the complexities of disease and understand the fundamentals of human biology. Our belief, and the core of our strategy, is that innovative, highly differentiated medicines provide large clinical benefits in addressing serious diseases. We believe these medicines not only help patients, but also help reduce the social and economic burden of disease in society. A biotechnology innovator since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential. For more information, visit www.amgen.ca and follow us on Twitter @AmgenCanadaGM, Facebook and Instagram @AmgenCanada, and LinkedIn @Amgen

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?
Amgen Canada is a founding member of the Resilient Healthcare Coalition (RHC) - a collaborative of health system partners committed to providing the leadership, insights, and solutions required to make Canadian health systems stronger and more resilient. The RHC brings together a diverse group of health system leaders from industry, research, and patient groups across the public, private, and non-profit sectors.

RHC’s mission is to create a health system that is faster, and therefore better able to absorb shocks such as COVID-19. They do this by focusing on accomplishing two fundamental goals. First, optimizing the use of healthcare data to better inform healthcare decisions. Second, expanding and accelerating patient access to innovative health technologies, from vaccines and diagnostics to therapeutics and medical devices.

BARRIERS TO SUCCESS
New medicines aren't always available or accessible when Canadian patients need them. In fact, less than 20 percent of new medicines launched globally are available on Canadian public plans. And for those that are, patients wait almost twice as long to access them compared to peer countries. As a result, Canada ranks last in the G7 and 19th out of 20 when compared to peer OECD countries in the time it takes for public patients to access new medicines.

Unfortunately, the time to reimbursement has almost doubled since 2013.

The issue is Canada’s multi-layered, sequential system for public reimbursement. It’s far too complex and slow.

As a result, Ontarians wait an average of 22 months after Health Canada's regulatory approval to gain public access to innovative medicines. Ontario patients deserve faster access to innovative medicines.

Without improved availability and timely access to new medicines, health and life sciences programs designed to help Ontarians will fail to attract investment, save money and most importantly, save lives.

KEY WINS
On October 17, 2023, Toronto Innovation Acceleration Partners (TIAP) and Evotec SE announced that the two companies have expanded LAB150, their translational BRIDGE partnership, to include Amgen as a strategic partner. The expansion goes along with a combined investment of US$14M to expedite LAB150 programs toward the formation of new companies.

LAB150 was created by TIAP and Evotec in 2017 to accelerate Toronto’s academic research into market-ready products. The expanded agreement builds upon existing partnerships between TIAP, Evotec, and Amgen to support the development of disruptive therapeutics by TIAP’s member base and draws upon Evotec’s industrialized drug discovery platforms. Amgen will provide financial support for chosen LAB150 projects along with significant mentorship from their drug discovery and development teams. In addition, Amgen Ventures will evaluate LAB150-derived companies for venture investment. These combined efforts will amplify the efficiency and translational potential of academic research to develop Canadian intellectual property, and novel therapies, and accelerate commercialization by Canada’s next generation of life science companies.

LOOKING FORWARD
Looking ahead, we’re embracing a future where healthcare is not just a system of repair, but a beacon of prevention and prediction. Our commitment lies in building a resilient healthcare ecosystem, one that champions the value-based philosophy of outcomes over cost. With our wealth of skills, knowledge, and experience, we are ready to craft integrated solutions alongside our partners: governments, payers, healthcare providers, and patients. Together, we’ll shape a healthcare future that is sustainable, effective, and built on the foundations of innovation and excellence for the betterment of patients.
AstraZeneca is a global, innovation-driven biopharmaceutical business with a focus on the discovery, development, and commercialization of medicines that transform lives, with a core scientific focus in the areas of Cardiovascular, Renal and Metabolic (CVRM) disease; Oncology; Rare Disease; Respiratory & Immunology; and Vaccine & Immune Therapies. The company employs 900 people at our Mississauga, Ontario head office and R&D Hubs. We are also rapidly growing --- a recent global corporate investment is bringing 500+ high-tech scientific jobs by 2025 and creating a new hub for rare disease research.

With a strong commitment to sustainability, we’re working to transform healthcare, change the lives of people for the better, and address some of the biggest challenges facing humankind: from tackling climate change, to advancing inclusion and diversity, health equity, and health system resilience.

AstraZeneca Canada (AZ Canada) is one of Canada’s leading R&D contributors, investing $148 million in Canadian R&D in 2022. The company was recognized for Best Workplace Culture in 2022 by the Canadian HR Awards and has been designated a Top Employer in the Greater Toronto Area for nine consecutive years.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?
At AstraZeneca, we are focused on enhancing our understanding of disease biology with the aim of treating, preventing and, in the future, even curing complex diseases. This includes discovering new ways to target the drivers of disease to create the next generation of medicines. Over 90% of our clinical pipeline today follows a precision medicine approach and includes the use of a broad range of cutting-edge technologies, such as circulating tumour and molecular diagnostics, near-patient tests and digital diagnostics.

AstraZeneca is ‘all in’ when it comes to sustainability and embedding it into everything we do --- harnessing the power of science and innovation to make a positive impact on society, healthcare systems, and the environment. We have been recognized as a global corporate leader in fighting climate change. Through our progressive Ambition Zero Carbon strategy, we are on track to reduce greenhouse gas emissions from our global operations (Scope 1 and 2) by 98% by 2026 from a 2015 baseline.

BARRIERS TO SUCCESS
A stable and timely regulatory and access environment is critical to ensuring Canada remains an attractive destination for research investment, clinical trials and biomanufacturing. Canada ranks last in the G7 and 19th out of 20 when compared to peer OECD countries in the time it takes for public patients to access new medicines. Ontario patients wait an average of 704 days after Health Canada’s regulatory approval to gain public access to innovative medicines on public plans.

Without improved availability and timely access to new medicines, health and life sciences programs designed to help Ontarians will fail to attract investment, save money and - most importantly - save lives. We will continue to partner with all levels of government to discuss how we can best address the long delays Canadian patients face accessing new medicines compared to other countries, and in creating a more sustainable and resilient system for all Canadians.

KEY WINS
Earlier this year, AZ Canada hosted Prime Minister Justin Trudeau, the former Health Minister Jean-Yves Duclos, Premier Doug Ford and other Canadian dignitaries to announce a major expansion of our research footprint in Canada. This includes the expansion of our existing AstraZeneca R&D Hub in Mississauga and the creation of a new Alexion Development Hub for rare diseases. The AstraZeneca R&D Hub is focused on areas such as breast, lung and prostate cancer, COVID-19, and chronic kidney disease, and the Alexion Development Hub is focused on rare disease research in haematology, nephrology, neurology, metabolic disorders and ophthalmology. The decision to select Canada is testament to the world-class scientific talent, its outstanding network of universities, hospitals, and research centres, and its strong cultural diversity. Through this continued growth, AstraZeneca has established one of the largest R&D footprints in the Canadian biopharmaceutical industry.

LOOKING FORWARD
AstraZeneca has an ambition to launch more than 15 new medicines by 2030, which creates value by:
• Improving health outcomes and transforming the lives of patients who use our medicines.
• Enabling healthcare systems to reduce costs and increase efficiency.
• Enhancing access to healthcare and healthcare infrastructure.

We are also looking to see a continued expansion of our research footprint and clinical leadership in Canada, leading a growing number of global clinical studies through our AstraZeneca R&D Hub and Alexion Development Hub.

Central to AstraZeneca’s success has been its talented, collaborative team and its efforts to ensure we remain a great place to work, fostering an inclusive and diverse workplace where everyone has the potential to develop and grow. Creating a dynamic and supportive work environment remains an integral priority for AstraZeneca in Canada, including tapping into the local highly-educated, skilled and diverse talent that exists in southern Ontario.
Bay Area Health Trust (BAHT) is a Hamilton Ontario-based company that operates life science businesses and invests in growth-oriented opportunities with the goal of returning value to its beneficiaries, Hamilton Health Sciences, Hamilton Health Sciences Foundation and McMaster University.

For over twenty years, BAHT has evolved to play a critical role in the local life sciences community, establishing its presence at the intersection of healthcare and innovation. Through its operating units, BAHT provides critical products and services ranging from clinical trial infrastructure to the commercialization of local innovations.

Bay Area Health Trust maintains a diverse portfolio of commercial operations:
- Bay Area Research Logistics
- Bay Area Records
- Bay Area Realty
- Bay Area Healthcare Solutions

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

Bay Area Health Trust’s President & CEO, Peter Kalra, local elected officials, and representatives of Hamilton’s vibrant innovation and life sciences eco-system celebrated the completed renovation and move to BAHT’s new, state-of-the-art facility at a ribbon-cutting event on March 17th.

Bay Area Health Trust’s business units are active participants in Hamilton’s life science community. The trust consistently engages with community stakeholders including, but not limited to: Innovation Factory, Synapse Life Science Competition, DeGroote Innovative Solutions Competition, Bay Area Science and Engineering Fair (BASEF), The Mark Preece Family House, and McMaster Innovation Showcase.

KEY WINS

The development of the new facility, located at 66 Innovation Drive in Dundas, has allowed for improvements to storage and packaging capacity, while also improving the quality standard of BARL’s services. Some of the facility was allocated to a larger, more efficient storage space utilizing rack storage to achieve an increase of over 25% in warehousing capacity (including staging, shipping, and receiving).

“We have invested over $2 million in this project because we see the demand and want to ensure we continue providing 110 percent for the people of Hamilton, Ontario, and Canada,” said Peter Kalra, CEO. “Moving to this location allows Bay Area Health Trust to support more studies. Whether it is storage in a temperature-controlled environment or preparing study medications to be sent to sites across Canada, North America or to international destinations.”

Some of the enhancements to the facility include:
- Almost doubling the square footage of the entire space from 9,000 sq. ft. to 19,000 sq. ft.
- Increase of 45% in 2-8-degree storage capacity with a new 345 sq. ft cold room.
- Doubling the size of the secondary packaging area, providing flexibility for future expansion and higher output capacity.
- Added two dock-level receiving bays.

LOOKING FORWARD

Bay Area Health Trust enters its third decade with the launch of internal platforms to improve its operational efficiencies and process improvement to support the new facility and our national and international growth strategy. Electronic management of inventory and quality systems ensures we remain at the cutting edge of technology, supporting our efforts to expand services and increase capacities. New labelling software has been introduced resulting in a 35% reduction in the label printing/checking process and has reduced the overall time spent by 65%.

Continued support in the Canadian life sciences and healthcare space is a step in the right direction and will see organizations like Bay Area Health Trust, and by extension, its beneficiaries, Hamilton Health Sciences, Hamilton Health Sciences Foundation and McMaster University continue to grow both domestically and on the international stage.

If you or someone you know requires clinical trial services support, don’t hesitate to speak to one of our helpful representatives, info@baht.com
BD is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics, and the delivery of care. The company develops innovative technology, services, and solutions that help advance both clinical therapy for patients and clinical processes for healthcare providers. BD has 77,000 employees and a presence in virtually every country around the world to address some of the most challenging global health issues. In Canada, BD maintains a corporate head office in Mississauga, Ontario, and a manufacturing and technical service center in Quebec City, Quebec. Across Canada, BD employs over 700 associates.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

BD supports healthcare heroes on the frontlines by developing innovative technology, services, and solutions that help advance both clinical therapy for patients and clinical processes for healthcare providers. We are entering a world where every lab test, doctor’s visit, injection, procedure, and implant will be shaped by advances in artificial intelligence, machine learning, and connectivity. While this shift had already begun before COVID-19, BD and the medical technology industry embraced a new level of tech-enabled agility to meet the challenges of the pandemic. Far from replacing human-centred care, these new digital tools will equip providers to make better-informed decisions, faster – enhancing care for patients.

BARRIERS TO SUCCESS

The COVID-19 pandemic underscored the need to explore how to maximize professional scopes to increase system flexibility and the importance of providing vulnerable resident populations with high-quality and safe healthcare solutions. Allowing pharmacists to focus on clinical care is a key part of building a healthcare system that provides patients and residents with access to faster, more convenient care, when and where they need it.

As the role of the pharmacist evolves to incorporate enhanced clinical care services, pharmacies are tasked with finding ways to free up time to implement those services and spend more quality time with patients. By automating time-consuming manual tasks, pharmacists can simplify workflows, provide better care to patients, expand their clinical service offerings, and work toward meeting value-based and population health initiatives. To accommodate an aging population, pharmacies that support long-term care must also consider ways to provide accurate and safe medication management in ways that accommodate residents’ needs. Pharmacists can help people understand and manage these complex regimens, sync their medications, improve adherence, and even prevent hospitalizations. As care is being moved closer to patients and residents, time is the most critical value add within the pharmacy.

KEY WINS

In 2021, CareRx, Canada’s leading provider of pharmacy services to seniors, announced that it would be the first pharmacy in Canada to use the BD Rowa™ Dose medication packaging system. Since implementation, BD Rowa™ Dose has become the centrepiece technology at the Company’s new state-of-the-art high-volume fulfillment centre that opened in Oakville, Ontario in 2023. Enabling Pharma teams to focus on clinical patient care instead of pharmacy operations has been a key area of focus. Through the BD Rowa™, a modular system, CareRx can prepare a broad spectrum of medications and multiple packages simultaneously and continuously. Over the pilot period, the data showed improved production and inspection efficiency and reduced error rate, leading to a more efficient operation with less risk of medication packaging errors. Key highlights include the significant improvements to production efficiencies with the increase in production output of 2,200 to 4,000 Rowa Dose packages per production hour. In addition to this – inspection efficiencies has increased from 86% (at the start of the pilot) to over 92% nearing the end of the pilot period which ultimately showcases the overall improvement in inspection and quality in medication handling.

LOOKING FORWARD

Through ongoing collaboration, BD-Canada and CareRx will focus on the needs of new models of care outside of hospital walls, starting in Ontario and continuing in other provinces. As the adoption of pharmacy automation accelerates, we will see the role of the pharmacist evolve. There’s a growing demand for pharmacists to extend primary care services through chronic condition management, prevention, and wellness, diagnosing and treating minor acute illnesses, and more. That’s why it’s so important that we power a growing network of pharmacies with technologies that automate and streamline workflows so pharmacists can concentrate on personalized, community-based care. There is also ample opportunity for greater collaboration between pharmacies and other healthcare organizations to better care for patients living with chronic disease, whether in long-term care or aging at home. We know the future of healthcare depends on providing more efficient care for chronic disease in more accessible settings. Those trends all converge in one place: the pharmacy.
Bioenterprise is Canada’s Food & Agri-Tech Engine. As the country’s national agri-technology-focused commercialization accelerator, Bioenterprise uses its 20 years of industry experience and its national and international network of experts, mentors, funders, advisors, government and industry partners, and researchers to help small and medium-sized agri-food businesses connect, innovate and grow.

Since its inception in 2003, Bioenterprise has supported over 2,500 innovative agri-tech companies, helped launch 2,000 technologies, generated $285 million in follow-on investment in Canadian agriculture and agri-food, and yielded a 200:1 return on invested dollars. The organization has six locations across Canada and more than 350 members and partners nationwide.

**LOOKING FORWARD**

Increasing access to programs and services not only benefits businesses, but all of Canada’s economy. As we develop a tighter network across all regions, we shorten the distance between expertise and applicable technology, between markets with gaps and made-in-Canada solutions, and we increase collaboration and promotion on a global stage.

As we look ahead to key sponsors and funders, we are seeking to alter the pattern of regionally assigning support and programs, and to instead provide a pan-Canadian solution to innovation, growth, and scale through programming.

Our goal remains to provide equal support across Canada regardless of size, stage, or location. A vision that will benefit Canada’s food, agricultural, and sustainability sectors and position us among other world leaders as we tackle some of the most pressing issues the world is currently facing.

**Company Profile**

**Bioenterprise Canada Corporation**

bioenterprise.ca

**Sector:** Agri-Food

**Countries/markets of focus:** Canada

**Year founded:** 2002

**Number of Employees:** 20

**Projected number of employees in 3-5 years:** 50

**MAJOR INVESTMENTS / ACQUISITIONS:** Agricommunications Program, FoodShift Program, and Green Pursuit Challenge in partnership with Dairy Farmers of Canada.

**BARRIERS TO SUCCESS**

The global impact of COVID-19 on social, professional, and economic activities cannot be understated; and the impact on innovation and acceleration was no different. Reduced liquidity, higher risk, and reduced capacity for collaboration and travel shut many doors for the ecosystem. This presented difficulty in structuring projects with support from many sources, primarily the more risk-averse private sector, however, it also normalized digital collaboration and opened many pathways to national unification of agricultural priorities.

Our primary barrier is creating universal pathways for businesses to grow and develop across the diverse funding, geographic, and sector landscape of our vast nation. As sustainability takes a front seat in mandates and programs across the country it will take a consolidated, collaborative solution to reach our climate impact goals and our immense food and agricultural economic potential.

**KEY WINS**

Bioenterprise is celebrating its 20th anniversary this year, marking over two decades of facilitating growth and collaboration across Canada’s agricultural value chain. In this time we have delivered programs across the nation for various funders and used our team of advisors and experts to increase capacity and commercialize new technologies to advance the leadership of Canada’s food and agriculture sectors.

Most recently the Engine was awarded funding under AAFC’s Agricommunications program to promote sustainability and inclusion across agriculture’s innovation ecosystem. Focusing primarily on sharing stories of businesses and industry leaders who are shaping the future of food and agri-tech across the nation, this program showcases what our government and innovators are doing to promote a sustainable, healthy sector and world.

Additionally, the FoodShift program funded under FedDev Ontario’s Jobs & Growth Fund is matching new sustainable technology initiatives with large-scale food processing operations to increase adoption and integration of new practices across the sector, which marries our industry knowledge and expertise within Canadian ag innovation. Known nationally and internationally as the go-to organization for agricultural startups and scaleup businesses to find resources and develop growth plans, we have worked to develop a deep network of professionalization services, research institutions and academia, and industry leaders across Canada, unifying what is often a siloed and regionally focused ecosystem. As Canada’s vast and diverse geographical landscape suggests, it can be difficult to unite the strongest resources for any sector into a single system, yet Bioenterprise has achieved coast-to-coast partnerships and provides equal access to expertise to any Canadian business, regardless of location or size. This continues to be our vision as we grow nationally and work towards pan-Canadian program delivery.
Imagine a consolidated life science and technology park home to the start-up and commercial-sized companies who are adapting digital strategies to the unique context of development and manufacturing. In other words, it is the introduction to true partnership, more connectivity, increased productivity, simplified compliance and the ability to leverage production information to respond to problems as they emerge.

Canadian Life Science and Technology Park is developing 56 acres of customized, high-performance buildings required by life science and technology companies that are in their respective growth stage.

The park’s demographics will include -

**Technologies:** Artificial Intelligence (AI), Big Data Analytics, Cloud Computing, Internet of Things (IoT), Security, Collaborative Robotics, and Others

**Applications:** Drug Discovery and Development, Clinical Trials, Testing, Manufacturing, and Others

**Clients:** Pharmaceutical Companies, Biotechnology Companies, Medical Device Companies, Bioprocessing Companies, CROs and CDMOs, Warehousing, Hospitals, Academia, and Others

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**
Designing and constructing up to 21 buildings on 1-5 acre lots with potential employment of, +1,700 jobs. The park will located in the town of Georgina, Keswick Ontario Canada. Our vision is as such:

- Connecting Life Science and Technology industries
- Capacity for purpose build and high-performance research, development and manufacturing
- Converging real estate, people, ideas, machines/systems and data within one singular network
- Bridging startup and established businesses
- Partnering academic and research, industry, government and investment community
- Enhancing safety, quality and compliance
- Smarter and faster manufacturing via Industry/Pharma 4.0
- Minimizing foreign export of technology, manufacturing and talent
- Ongoing pandemic readiness.

**BARRIERS TO SUCCESS**
Challenges mitigated to date:

- Capital raise during challenging economic times
- Planning for construction in advance of city’s main utilities and services coming to realization for commercial and scaleable size

**KEY WINS**
Key successes to date include:

- Purchased debt-free land of 56 areas dedicated to the Life Science and Technology space
- Urban Planning Complete
- Initiated Site Master Planning
- Capital Raise In-Process With Enough Funds Raised to Progress Park Into Design Phase
- Zoning Process Underway With Estimated Approvals Planned for Q1 2024

**LOOKING FORWARD**
In 5 years we plan on having constructed 5 out of the 21 planned buildings with strategic partners, be in a position to provide a special economic zone easing the way for entrepreneurs to blaze their trail, improve the way we work together where competition is secondary and partnership is primary, and finally, enable organizations to leverage digitalization for faster therapeutic innovations and production.
Regenerative medicine, including cell and gene therapies, is widely recognized as the future of medicine. CCRM is preparing Ontario, and Canada, for that future. Regenerative medicine harnesses the power of stem cells, biomaterials and molecules to repair, regenerate or replace diseased cells, tissues and organs.

CCRM accelerates the translation of promising regenerative medicine-based technologies and therapies, especially cell and gene therapies, into life-changing health outcomes for patients. CCRM launched in 2011 with the goal of solving the big challenges in regenerative medicine and moving promising technologies and therapies from lab to life. Over the past decade, CCRM has partnered with leading research institutions to launch new ventures, enabled the industry by building much-needed biomanufacturing infrastructure, and scaled emerging companies by catalyzing investment.

WHAT ARE YOU DOING THAT'S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

Many new and potentially life-changing regenerative medicine-based treatments never reach patients because they are not successfully moved from the laboratory to the marketplace. To fulfill regenerative medicine’s promise to treat the many diseases affecting our population, a world-renowned group of stem cell scientists and bioengineers came together to form CCRM.

Together, CCRM and its partners are solving the big problems and bottlenecks in regenerative medicine. For example, CCRM is addressing the critical skills gap by establishing bespoke workforce training that is available virtually to anyone in the world. With respect to the manufacturing capacity shortfall for Canadian therapy developers, CCRM is building gap-filling infrastructure so that the companies CCRM launches, invest in and grows with local talent will remain in Canada.

MAJOR INVESTMENTS / ACQUISITIONS: OmniaBio (CCRM’s new subsidiary)

BARRIERS TO SUCCESS

The industry-wide talent and skills shortage industry, is something CCRM is wrestling with. CCRM is doing its part to address training needs by partnering with CellCAN, a Montreal-based knowledge mobilization network in cell and gene therapies. Together we launched the Canadian Advanced Therapies Training Institute (CATTI) in July 2021, and have already opened a first-of-its-kind training facility at the University of Guelph and seen success in graduating students from its programs.

Another challenge is the adoption of cell and gene therapies. At current prices, health systems are not able or unwilling to support the rollout of these expensive treatments. If we want adoption to happen, the cost of goods sold (COGS) must come down. This can be achieved through efficiencies in industrial process development and manufacturing, which can be identified and targeted when therapeutic developers collaborate with contract development and manufacturing organizations (CDMOs), like OmniaBio, that are well-placed to eliminate inefficiencies by using innovative technologies, such as robotics. However, this collaboration must take place at an early stage in development. Once therapies reach later clinical and commercial-stage manufacturing, their processes are locked in for regulatory and quality assurance reasons.

KEY WINS

CCRM has built an ecosystem that not only nurtures home-grown innovation, keeping it in Canada, but one that attracts global innovation too. CCRM’s non-profit, public-private partnership model, built from the ground up over more than a decade, engages 600+ organizations around the world, employs almost 250 highly qualified personnel and provides $20M per year in gap-filling services to dozens of companies on the back of tens of millions of investments in its specialized facilities. CCRM has launched and scaled 17 portfolio companies that have gone on to raise over $1B.

Recent successes include completing construction (core) of OmniaBio Inc.’s first site (November 2023), a milestone collaboration set to be Canada’s largest CDMO for cell and gene therapies; launching CCRM Nordic (May 2023), a global hub set to strengthen the Nordic cell and gene therapy ecosystem using the CCRM model of public-private partnership as a blueprint for success; and, opening a new hands-on training facility (May 2023) for the CATTI to foster a strong domestic biomanufacturing industry by providing specialized GMP training, a skill set that is sorely needed.

LOOKING FORWARD

In five years, the commercial scale spin-off of CCRM is fully operational and has grown to over 1,000 employees. OmniaBio has reached its annual revenue target of $300M. As a result of the manufacturing supply chain built by OmniaBio, at least two additional $1B investments in cell and gene therapy manufacturing have been announced and are under construction. Ontario is well underway to achieving its goal of being a major cell and gene therapy manufacturing destination, with at least 20,000 jobs in this new and exciting manufacturing sector.

Additionally, through ongoing efforts in the Ontario life sciences ecosystem, an additional $2B of new investment capital has been anchored here in Ontario to accelerate the start-up and growth of dozens of new companies developing cell and gene therapies.

In recognition of CCRM’s model for translating early-stage discoveries into clinical-ready technologies and therapies, as well as sustainable, high-growth companies, CCRM hubs have been established around the world in countries where the science is excellent, but commercialization lags. These hubs, generating >$1B in investment, work together to identify synergies and form a network with a shared mission of advancing regenerative medicine globally.
dicentra is a leading Contract Research Organization (CRO) and global consulting firm that specializes in addressing all matters related to safety, quality and compliance for all product categories in the global life sciences and food industries. We evaluate, implement and provide all the necessary support for products and operations to gain market access and build confidence in your brand. Since our inception in 2002, we have completed over 24,000 projects and serviced over 1,400 companies internationally.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

dicentra’s value proposition centers on providing end-to-end product development support through three specialized divisions: Clinical Trials, Consulting, and Certifications.

Our Clinical Trials division, excels in conducting Safety & Efficacy Research, specializing in Medical Devices and Nutraceuticals. To date, we’ve completed 66 clinical research projects for clients across multiple industries, and we’ve recruited 6,000+ participants across 18 sites in the United States and Canada, facilitating FDA and Health Canada Approvals.

Our Consulting division is equally unique, having filed over 10,000 product applications, and playing a pivotal role in shaping the Natural Health Product Regulations. We excel in a wide range of categories, including natural health products, cosmetics, foods, drugs, medical devices, and veterinary health products, navigating complex regulations to streamline our clients’ path to market.

As the largest Canadian-owned and operated certifying body, our Certifications division services hundreds of clients across Canada. We out-compete major multinational certification bodies domestically by offering superior customer service and flexible auditing schedules to our clients. Our customer satisfaction scores outrank any of our competitors in Canada.

Looking forward, our most significant challenge remains inflation. However, with our proactive approach, conservative budgets, and strategic resource allocation in 2024, we are confident in surpassing expectations for the coming year.

**KEY WINS**

Since the COVID-19 pandemic began, dicentra has achieved significant milestones and successes. During this challenging period, we played a crucial role by authorizing hundreds of vital COVID products, ensuring their availability in the market when needed most.

Moreover, dicentra received the Safe Food for Canadians Regulations Licence (SFCR) from the Canadian Food Inspection Agency (CFIA). This milestone empowers us to import products in various categories, such as meat, fish, dairy, eggs, processed eggs, fresh fruits or vegetables, processed fruit or vegetables, honey, maple, and unstandardized products into the Canadian market on behalf of our valued clients.

Furthermore, we are proud to announce that dicentra has become an authorized certification body for the CanadaGAP Program, offering CanadaGAP® certification audits in Canada and the United States.

**LOOKING FORWARD**

In the next 5 years, the Life Sciences industry will undergo significant changes. Discretionary spending on products will decrease, intensifying competition and squeezing margins, especially in high-volume product categories.

Additionally, Health Canada has been increasing regulatory costs for all industries at paces meeting or exceeding inflation (e.g., Cost Recovery Fees for NHPs or regulatory fee increases for medical devices and drugs), presenting challenges for SMEs and firms with large product portfolios. However, economic recovery is expected within the next two years, reining discretionary spending and rejuvenating the life sciences industry. We advise companies hoping to enter the market to act swiftly, launching their products before getting priced out by the increasing cost of regulation (especially in the NHP industry). This proactive approach positions them ahead of the curve, ready to capitalize on the industry’s resurgence.

In the next 5 years, dicentra aims to maintain its global leadership in regulatory affairs. We will continue guiding clients through industry challenges, providing essential support in the evolving regulatory landscape. We aim to lead in innovation, regulatory compliance, and client satisfaction, thriving amidst these changes while helping others succeed.
Environmental Systems Corporation (ESC) has four Vertically aligned divisions.
1 - Critical Environments, Designs, Manufactures, Constructs and Validates Cleanrooms, Biological Safety Containment Laboratories, and any Temperature Humidity Controlled Critical Environment across North America.
2 - HVAC/R Manufacturing, Designs and fast track manufactures project specific easily customized precision control HVAC solutions for the most energy efficient systems.
3 - Products Group, Provides ALUMA1, the most flexible wall and ceiling systems for Cleanroom construction fully reconfigurable and recyclable for a circular economy. smartHEPA, the quietest most energy-efficient HEPA Fan Filter module available.
4 - Pharma / Industry 4.0, Systems that go beyond traditional control algorithms to provide diagnostics and data insight, with AI-generated predictive analytics allowing clients to improve operations and financial outcomes.

**WHAT ARE WE DOING THAT’S UNIQUE?**
With our vertical integration, ESC can provide clients with the confidence that the solution designed is correct for the application so they can grow and deliver their products. We assist through our process of Discover, Diagnose, Design, and Fast Track Deliver the RIGHT Solution to fit the project. ESC’s enhanced Conceptual Design process allows us to guarantee very early in design a guaranteed fixed project cost.

**WHAT PROBLEMS ARE WE SOLVING?**
Our expertise is built around our roots in industrial temperature humidity control and our knowledge of how to deliver solutions to a broad range of applications. Our strength is if the project involves construction of the environment, control of the temperature, humidity, pressurization, and particulate.

**WHAT IS OUR IMPACT BEYOND OUR COMPANY’S WALLS?**
Our projects deliver the ability to assist the researchers developing the next generation of new life-changing solutions to full-scale manufacturing facilities.

**MAJOR INVESTMENTS / ACQUISITIONS:**
Our new 66,000-square-foot facility is allowing us to manufacture larger, more complex solutions, and inventory more of the long lead items, that allow . This allows ESC to have the shortest delivery schedules in the industry.

**BARRIERS TO SUCCESS**
2022 was the year of supply chain woes and price uncertainty, which appears to have stabilized. 2023 has been a year of economic uncertainty for our clients, higher interest rates have had a wait-and-see attitude for expansion plans. Just in the past month, we are seeing a resurgence in project kick-offs. Our inability to predict when a client will start a project has been a barrier to forecasting.

**KEY WINS**
Our vertical integration is a result of listening to clients and providing solutions that meet their requirements. HVAC Systems were a natural extension from our original service roots. Cleanroom Design / Build was asked of us to expand our offering to be a single source solution. This, in turn, led to the development of ALUMA1 Walls and Ceilings, followed by smartHEPA, providing solutions for an unfilled niche. smartCRITICAL, our Industry / Pharma 4.0 solution, is an extension of the controls integration we have provided, moving us into hardware/software solutions that enhance those traditional solutions available, allowing clients to improve operations and financial outcomes.

**LOOKING FORWARD**
We see our business transforming from being a construction solution-focused company for the majority of our first 40 years into becoming a platform company where our four divisions each drive their own success, while contributing to providing fully integrated solutions no other company in our space can offer. Data acquisition and real-time analytics will provide us the ability to provide predictive analytics and reduce energy for a greener future for us all, while continuing to provide the critical environments required for manufacturing.
At Gilead Sciences Canada, we set and achieve bold ambitions in our fight against the country’s most devastating diseases, delivering innovative therapies that offer new hope for patients. Our ambitions have led us to a cure for hepatitis C and to transforming the treatment and prevention of HIV. Our innovation is helping people with diseases and conditions that include cancer, viral hepatitis, HIV and COVID-19. We continue to set our sights on curing more viral diseases and certain cancers.

Gilead is proud to reinvest approximately 20% of its revenues back into Canadian Research and Development (R&D) – surpassing its industry peers. Additionally, nearly half of Gilead’s global tableting/pill supply is made in Ontario.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

We are leading the charge to end the HIV epidemic for everyone, everywhere and we are passionately pursuing that goal. We work to provide patients with the very best that scientific innovation can deliver, including new antiviral therapies and next-generation cancer treatments and cell therapies. We will keep reaching further, across more disease types and for the benefit of more patients, helping to remedy health inequities and other societal barriers to care. We are also committed to promoting health equity within Indigenous communities across Canada, underscored by a recently announced, historic philanthropic investment of $4 million over three years. This initiative is one-of-a-kind in that it was entirely co-created with an indigenous-led organization, to help improve health outcomes in indigenous communities impacted disproportionately by HIV and viral hepatitis.

Our key therapeutic areas – HIV, viral hepatitis and triple-negative breast cancer – all disproportionately impact marginalized communities. Each and every day we are working to bring new innovations to these communities both from a scientific perspective, and also from a community support perspective. We believe we must always do more than just deliver the science, and that remains a key focus as we work to increase access and health equity within Canada and beyond.

**BARRIERS TO SUCCESS**

High business uncertainty and lack of recognition of the full value innovative therapies bring to our society continue to be a limiting factor for future significant investments, as we grow the business. Lengthening and uncertain time frames for public reimbursement compared to our international counterparts make it more challenging to bring products to Canadian patients.

**KEY WINS**

Gilead has been able to attract talented employees, growing its workforce by about 50% in the last few years due to the launch of new cancer therapeutics for Canadian patients.

The demonstrated value of our CAR-T (cell therapy) via clinical trials has changed the way certain blood cancers are treated, offering remission and therapies with curative intent for many more people.

Gilead has been at the forefront of the pandemic, enabled to deliver its COVID therapy to reduce the burden on our healthcare system. As we prepare for emerging viruses, agility and equity in procurement processes must remain a priority area.

**LOOKING FORWARD**

We’re proud that Canada is the backbone of some of our most key global scientific innovations through clinical trial participation, substantial Canadian R&D investments, and a significant manufacturing presence. Our strategic ambition is to deliver over 10 transformational medicines by 2030 – and we will do this by expanding our leadership in virology to become a leader in oncology.

We will also play a key role in ending the HIV epidemic - working in close partnership with the HIV community, we will bring forward new person-centred options for HIV prevention and treatment while continuing to advance with speed and commitment toward a cure.

We are working toward the WHO’s goal of ending HCV as a public health problem by 2030, providing funding, medicines and expertise to bring care to some of the most vulnerable populations and disproportionately impacted countries.

Lastly, we are changing the way cancer is treated through cell therapy, making remission and a potential cure possible for many more people. Our ambition to cure cancer through cell therapy is being led by Kite, the global leader in cell therapy with 5 Health Canada approvals for its two CAR T cell therapy products in just four years for certain types of blood cancers.
At GlaxoSmithKline (GSK), our ambition is to positively impact the health of 2.5 billion people by the end of 2030. We aim to do this by developing transformational vaccines and medicines and making them available at responsible prices that are accessible for patients and sustainable for our business. Central to our success is our people who are experts in science and who are identifying, researching, developing and testing ground-breaking discoveries, and manufacturing regulation, intellectual property and commercializing vaccines, specialty medicines and general medicines products that help prevent and treat disease to improve the health of millions of people around the world. Our core therapeutic areas include infectious disease, HIV, Immunology/respiratory and oncology while being steered by our long-term priorities of innovation, performance, and trust.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

We unite science, technology and talent to get ahead of disease together. We are ambitious for patients to deliver what matters better and faster through investing in innovation and growth at pace to achieve health impact at scale. We are accountable for impact with clear ownership and support to succeed by setting focused objectives with clear measures of success. We do the right thing with integrity and care because 2.5 billion people count on us to lead the way on issues that matter and to get it right.

**MAJOR INVESTMENTS/ACQUISITIONS**

The University of Toronto (U of T) and biopharma company GSK are investing $3 million for the creation of a new chair that will enhance and develop vaccine education programs and practice tools for pharmacists and other health professionals. GSK is providing $2 million, while U of T’s Leslie Dan Faculty of Pharmacy is pitching in $1 million.

“Community pharmacies are increasingly seen as health hubs for primary care services, and pharmacists are ideally suited to promote the best health outcomes for vaccine-preventable diseases at all stages, from childhood to older adults,” said Lisa Dolovich, professor and dean at U of T’s Leslie Dan Faculty of Pharmacy. “The support from GSK to establish this chair is vital to advancing our education and research in this important area of practice.”

As one of the most accessible primary care providers, pharmacists engage in health promotion, identify indications for vaccines, provide education to patients, administer vaccines, and deliver follow-up care.

During the mass rollout of COVID-19 vaccines, pharmacy teams across Canada demonstrated the ability to mobilize to meet public health needs in times of crisis. As the impact of the pandemic continues to stretch our health system, pharmacists are taking on an increased role in primary care, filling care gaps with pharmacy clinic services that include vaccinations. “But we need to ensure pharmacists are continually supported with evidenced-based tools to provide the best possible care over time,” said Dolovich.

As a result of limited access and other factors brought on during the height of the pandemic, many children and adults are behind on routine immunizations. A 2022 survey led by Campaign Research showed that one out of five Ontario adults missed or delayed their routine immunization for preventable illnesses, like shingles and pneumonia. Pharmacy teams can help address gaps in care like this and have demonstrated the ability to be nimble enough to implement new, innovative ways of providing critical health services. “Further supporting and enhancing the role of pharmacists as vaccine care providers expands access for patients and helps support the health of our families and communities,” said Dolovich. “The creation of this chair provides an exciting opportunity to focus on how pharmacists can continue to play an important role in managing vaccine-preventable diseases.”

**BARRIERS TO SUCCESS**

High business uncertainty and lack of recognition of the full value innovative therapies bring to our society continue to be a limiting factor for future significant investments, as we grow the business. Lengthening and uncertain time frames for public reimbursement compared to our international counterparts make it more challenging to bring products to Canadian patients.

**KEY WINS**

Based at the Leslie Dan Faculty of Pharmacy, the GSK Chair in Vaccine Education and Practice-Oriented Tools will build on current knowledge and training to equip the pharmacists of tomorrow with the skills and tools to adapt to the rapidly evolving clinical scope of practice and the needs of patients and communities. The chair will also develop evidence-based models of vaccine care that build trust, access, and improve health outcomes.

**LOOKING FORWARD**

“At GSK, we believe strong collaborations, such as this one with U of T, are key to driving innovation and excellence in research and education with the goal of improving patient experiences and health outcomes,” said Dr. Bryan Tennant, Scientific Director, Vaccines at GSK Canada. “We believe that the Leslie Dan Faculty of Pharmacy and the new GSK Chair in Vaccine Education and Practice-Oriented Tools will lead the way in equipping the next generation of pharmacists for an always evolving world and set new standards in education across Canada and around the globe.”
HealthPartners is a national charitable organization connecting Canadians to 17 of Canada’s most respected and well-known health charities, which represent some of the most devastating chronic diseases and serious illnesses faced by Canadians. Since 1988, its campaign work has brought employers the tools they need to build more engaged and healthier workplaces while its targeted campaigns have raised in excess of $200 million for life-changing research, programs and community services, benefitting millions of Canadians.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

HealthPartners is the sole organization in Canada raising funds for nationwide health charities through workplace giving. We conduct engaging, accessible fundraising campaigns in Canadian workplaces and give the money we raise to our 17-member charities which are Canada’s most trusted national patient organizations. Over the course of our 35 years of operation, we’ve raised more than $200 million which has enabled Canadian health charities to fund research, provide patient support and education and advocate for health equity. At the same time, our fun, engaging workplace campaigns help drive employee engagement and retention and augment corporate reputation. It’s a win-win-win equation: health charities get the money they need; employers get more engaged employees; and donors get to know they helped nearly every person in Canada who is touched by a chronic or acute medical condition.

**BARRIERS TO SUCCESS**

Like all charities, HealthPartners is experiencing a “giving gap” as fewer Canadians are choosing to make charitable donations. Even as demand spikes for the charitable support patient organizations provide, Canadians are now donating significantly less to charity than even five years ago. At the same time, health charities are struggling with tax measures that disincentivize major charitable donations and government funding that is harder for patient organizations to access. HealthPartners is needed as an additional source of revenue for health charities now more than ever but will have to work even harder to optimize current giving campaigns and add new ones in the future.

**KEY WINS**

Like every other organization, HealthPartners had to shift its operating model rapidly and significantly when the pandemic started: fundraising events that used to be conducted in person shifted online; paper donation forms had to be replaced by digital ones. As fewer events were held, HealthPartners’ revenue fell 13.

**LOOKING FORWARD**

HealthPartners has a strong new three-year strategic plan that will enable it to build our annual revenues back above $11 million by 2026. We’ll do that with our “25 by 25” plan to add 25 new corporate campaigns by 2025. That will enable our member charities to deliver even more patient support and fund even more health research in Canada. Want to learn more? Visit www.healthpartners.ca.
Innovation Factory is a not-for-profit business accelerator, serving as the catalyst for technology innovation in the greater Hamilton area since 2010. Innovation Factory provides business services, training, mentorship, and strategic connections to drive market adoption, leverage intellectual property, and increase revenues, investment, and jobs. Innovation Factory collaborates with forward-thinking companies in areas like advanced manufacturing, digital ICT, cleantech, intelligent transportation, social innovation, and the life sciences sector. Notably, 25% of Innovation Factory’s clientele belongs to the life sciences. Recognizing the increasing demand for specialized assistance in this sector, Innovation Factory provides a range of programs specifically designed to foster and expand these enterprises.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

At the core of Innovation Factory’s mission is a commitment to bridging the critical challenges our clients face. We specialize in navigating the complexities of acquiring funding, talent, and expert knowledge, particularly when such expertise is rooted in academic settings. Our programs like SOPHIE (Southern Ontario Pharmaceutical and Health Innovation Ecosystem) and HEALTHI (Hamilton Ecosystem to Accelerate and Leverage Trials of Health Innovation) offer financial aid, vital connections, and crucial access to these academic resources.

The SOPHIE program, funded through the Federal Economic Development Agency for Southern Ontario (FedDev Ontario), aids Ontario life science innovators in initiating collaborative ventures while tapping into the facilities and expertise of renowned Hamilton institutions like McMaster University, Mohawk College, Hamilton Health Sciences, and St. Joseph’s Healthcare Hamilton. Eligible candidates can also secure up to $100,000 in non-dilutive grant funding to back their commercialization project.

The HEALTHI program assists participants in collaborating with research groups from Hamilton Health Sciences or St. Joseph’s Healthcare Hamilton. This involves crafting preliminary protocols and documentation crucial for commercialization or clinical trials. Life science innovators gain insights into clinical viability and receive specialized guidance on product development, evaluation, and study design.

BARRIERS TO SUCCESS

One of our most significant challenges has been bringing together all the necessary stakeholders in the community, spanning all three levels of government as well as private and public institutions. Additionally, we face the hurdle of capturing the sustained attention of our partners, competing with other news and activities that could divert their focus away from supporting high-potential life science innovation. Our ultimate goal is to weave a network of interconnected organizations so that we can synchronize our activities to bolster early-stage, innovative life science companies.

KEY WINS

Innovation Factory doesn’t just offer these services; we measure effectiveness through tangible results. Over the last two years, we have been instrumental in launching over 40 commercialization projects, leading to $7.6M in project investments in commercialization, over 100 jobs created, and $50M in funds raised by companies through our SOPHIE program. Additionally, since 2020, the HEALTHI program has accepted over 25 promising projects from different life science companies, signalling a robust interest in fostering cutting-edge research and product development in the health sector.

All of the companies that participated in either a HEALTHI or SOPHIE project have collaborated closely with a leading institution or hospital partner, gaining access to invaluable services that bolster their commercialization efforts. Both HEALTHI and SOPHIE’s strategic partnership with internationally renowned administration and research institutes have not only strengthened the infrastructure of high-potential health science companies but also served as a launchpad for innovative health solutions.

In its entirety, our footprint in the life sciences sector illustrates how our impact is more extensive than just our organization, sparking growth and fostering opportunities in the broader ecosystem.

LOOKING FORWARD

Innovation Factory is dedicated to bolstering the Hamilton ecosystem through its life science endeavours and aims to enhance the city’s expansive growth within the field. Our mission emphasizes championing innovative entrepreneurs and fostering collaboration among leading institutions. With programs like SOPHIE, HEALTHI, and our latest collaboration with HaloHealth, our goal is to bridge the divide between healthcare startups and clinical expertise.

Through ongoing collaborations with funding partners, community stakeholders, and businesses, we aim to continue to create influential life science programs and funding streams. Innovation Factory’s collaborative approach ensures that life science companies are well-supported, particularly during crucial phases of their commercialization, preventing them from facing challenges alone.
Life Sciences Ontario Scholarship and Mentorship Program
www.lifesciencesontario.ca/scholarship

The Life Sciences Ontario (LSO) Scholarship and Mentorship program was developed in 2019 and has become an important element of the LSO mandate, under education and mentorship. Each spring, we accept applications from undergraduate students at Ontario universities or colleges studying in fields that are linked to employment within the life sciences sector.

In the 5 years of running the program, we have provided financial support to 168 students worth $524,000. And more importantly, we have paired each student up with an experienced professional within the life sciences sector. Through the support of our sponsors over the years, we have been able to help bring awareness to the many opportunities that exist in Ontario’s life sciences sector.

LOOKING FORWARD
This year, we had 300+ eligible applications — our highest thus far. Along with our partners, we will continue to take steps to support the future young talent as they become trained in the skills needed for the life sciences jobs of tomorrow. Our goal in the next 5 years is to triple the funds distributed to students with a goal of improving Inclusion, Diversity, Equity, and Accessibility (IDEA) within the life sciences sector.

STUDENT TESTIMONIALS
“The Life Sciences Ontario Scholarship Program is an excellent opportunity for students in Life Sciences to connect with many influential individuals in this field. This program has opened my eyes to unique career pathways and provided me with many insights on how to excel in this industry. Overall, this program is a great gateway into the Life Sciences industry and I would recommend it to all students in this field.”
- Simonne Rauch, Queen’s University 2022 Award Recipient

“The program really opened my eyes to the variety of careers in the life sciences. Speaking to different professionals in vastly different roles provided me with great insight and advice that I will apply to my own career path. I particularly enjoyed hearing about where my mentors’ careers began, and how they progressed and changed to where they are now – it was really inspiring!”
- Kirsten Entz, McMaster University, 2022 Award Recipient

“The LSO mentorship was a great experience. Prior to this event, I was completely unaware of what the life sciences industry was or what it entailed. I genuinely had no idea that there was so many career paths available within this sector. When I first applied to this scholarship, my idea of “life sciences” revolved completely around medical fields and healthcare. Surprisingly enough, my mentor introduced me to several different possible career paths that are a part of the life sciences. She gave me insight, tips, and just general knowledge of how I can reach my career goals, build my network, and even start a new career within the life sciences. I am now in touch with several individuals who work in this industry, and am planning to meet them in the near future. With that being said, thank you for awarding me with this scholarship, and providing me the opportunity to meet such great people and gain such valuable knowledge. I hope you continue this scholarship for years to come. Thanks again.”
- Taylor Kerr, Brock University, 2022 Award Recipient
Embedding inclusion, diversity, equity and accessibility (IDEA) in Canada’s life sciences sector will elevate organizational performance, help Canada accelerate growth and innovation, and build a sector where everyone can belong, contribute and thrive. While many organizations have taken steps to embed IDEA in their cultures and practices, we do not yet have a clear picture of what is being done to advance IDEA across the life sciences, the barriers that are preventing progress or the greatest opportunities to drive meaningful change. To address this gap, a survey and focus groups with stakeholders in the life sciences sector across Canada was conducted. This report summarizes our findings, including priority actions for our sector to advance IDEA and realize the full innovative potential of Canada’s diverse talent pool.

It is our hope that the findings and recommendations in this report will advance a community-based approach to embedding inclusion, diversity, equity and accessibility into the life sciences sector so that we can unlock the full innovation potential of Canada’s diverse talent pool and build an ecosystem where everyone can belong, contribute and thrive.

**Key Findings**

Through our national survey and conversations with identity-focused groups, we have identified areas where the life sciences sector has made progress in IDEA, as well as where barriers, challenges and shortcomings are holding us back. Building on these findings, there is an immediate opportunity for organizations to prioritize IDEA initiatives in the following areas:

**TALENT DEVELOPMENT**

Advance inclusive and equitable approaches to recruitment, training and performance management for all individuals studying or pursuing a career in the life sciences sector.

**COMMUNITY AND CULTURE**

Build a stronger sense of belonging for all employees by tackling the complex and challenging work of fostering human connection and building community.

**KNOWLEDGE**

Strengthen understanding and appreciation of the need for and benefits of IDEA initiatives among all individuals who act as mentors; connect individuals to external mentorship programs (e.g. Impact Mentoring) if in-house capacity for mentorship does not exist.

**LEADERSHIP**

Catalyze progress in IDEA by building leadership teams that are diverse, competent in IDEA and accountable to IDEA commitments.

**Leadership**

1. Embed IDEA into the corporate strategy or develop a dedicated IDEA strategy that links to the corporate strategy.
2. Hold leaders accountable to IDEA by building IDEA metrics into performance management and positioning boards or oversight committees to monitor and support progress towards IDEA.
3. Provide ongoing training to leaders regarding IDEA, including emerging best practices in IDEA and issues/topics of relevance to specific equity-deserving groups.

**SECTOR-WIDE OPPORTUNITIES**

Our study also uncovered several community-based initiatives that have potential to scale and achieve broad impact in the sector:

1. Articulating, documenting and disseminating the case for IDEA—Ensuring access to sources that make a clear and compelling business case for prioritizing IDEA in the sector can help organizations build support for IDEA initiatives. IDEA leaders in the sector can come together to develop and share the case for IDEA—capturing its potential to foster innovation, talent retention, employee engagement and productivity—through ongoing discourse and reporting. Such resources, made broadly available, can help catalyze understanding and change.
2. Creating and sharing a library of IDEA tools and templates—Many organizations that are limited in time and internal expertise would benefit from access to a library of resources (e.g. methodologies for inclusive recruitment, performance management, mentorship, IDEA policies, company demographic and engagement surveys).
3. Establishing an IDEA community of practice for leaders—Establishing safe spaces for organizations’ IDEA leaders to come together to support each other on the journey has the potential to accelerate knowledge dissemination, build resilience and sustain progress.

**RECOMMENDATIONS**

**Talent Development**

1. Ensure job postings use inclusive language and focus on the essential skills and competencies required for the role.
2. Form diverse hiring committees that are trained in equitable hiring practices (e.g. ensuring shortlists are diverse, assessing candidates objectively).
3. Ensure all contributions to an organization are being assessed and rewarded through unbiased performance reviews.

**Community and Culture**

1. Support the participation of employees in employee resource groups by providing time, financial support or other resources; build awareness of initiatives outside of the organization such as affinity groups (e.g. Canadian Black Scientists Network).
2. Offer formal mentoring/coaching programs for employees by providing training to build inclusive mentorship skills (i.e. how to tailor discussions and support to the needs of mentees) for all individuals who act as mentors; connect individuals to external mentoring programs (e.g. Impact Mentoring) if in-house capacity for mentorship does not exist.
3. Ensure that individuals that support, plan and lead IDEA initiatives are recognized and/or compensated for their time.

**Knowledge**

1. Require IDEA training for all employees during onboarding and deliver regular (e.g. annual) IDEA training modules to update staff on available resources and supports (e.g. employee resource groups, mentorship programs).
2. Collect feedback on IDEA initiatives and report on the progress of IDEA within organizations and to the public.
3. Track and communicate data regarding representation at each level of the organization and against the overall labour force, employee engagement/satisfaction, pay equity and organizational progress against IDEA goals/strategy.
The LifeSciences Talent Accelerator (LSTA), is a training program developed in partnership with industry that provides industry-specific exposure, training, and experiential learning opportunities for participants from diverse backgrounds to orient talent towards and within the Life Sciences industry. Developed in consultation with industry, the 100% virtual training program provides industry-specific exposure and experiential learning opportunities in the areas most important to the sector.

In addition to training the next generation of Life Sciences talent, the LSTA also offers a talent bank to all our graduates, facilitating the connection between new talent and industry. Our talent bank allows companies to preview potential candidates narrowed down by specific skills easily, reach out to candidates directly for interview, and expedite the connection between industry-specific trained talent and the Life Sciences industry.

**WHAT ARE YOU DOING THAT'S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY'S WALLS?**

With the central focus on producing industry-ready talent, LifeSciencesTA offers critical training to position participants for successful careers in the Ontario Life Sciences sector. Our program is designed to have a positive impact on Ontario’s workforce by reducing the skill deficit level and unemployment rate in the Life Sciences sector, as well as benefiting the economy. Employability and employment are achieved by providing the requisite sector-specific skills for participants to find employment in the sector while also providing companies with the precise talent they are seeking. To date, we have placed over 30 participants in internships.

With content developed by experts currently working/hiring in the sector, the LSTA Program offers participants a chance to develop both sector-specific skills and competencies to ensure they have the right skills, with demonstrable competencies, to match the most in-demand jobs in the Life Sciences sector.

**BARRIERS TO SUCCESS**

Our biggest challenge has been COVID and the restrictions it brought as it delayed our program development by almost a year.

**KEY WINS**

The LSTA was designed to effectively align with current industry needs. For this reason, since its inception, we have been engaging with industry. As we started our engagement with the sector, the feedback on the need for such a training program has been overwhelming, so much so that a number of big pharma companies such as Roche, Sanofi, Apotex and Microbix have dedicated in-kind resources (such as experts to develop content and serving as members in our Advisory Board) to help us build the training program.

In addition to the validation we have received from industry-recognized through relevant partnerships, we were also able to train and place over 30 participants to date. Preliminary consultations with sector companies indicated that our strategy, including the industry-readiness training and internship placement portion of the program, seamlessly aligns with their company’s new talent acquisition strategies, hiring new graduates immediately after the internship is complete.

A talent bank for all our LSTA graduates, which facilitates the connection between new talent and industry, was also developed and deployed. Just like our training program, the LSTA talent bank has been very well received by the sector and has received support from a number of pharma companies.

**LOOKING FORWARD**

We are proud to have engaged a very industry-relevant Advisory Board so in addition to continuing to update and adapt the LSTA to fit the current needs of the industry, we are also aiming to expand to be able to offer the program beyond Ontario and provide value-add talent to this vital industry. The fund that allowed us to develop this training program was specific to the province of Ontario, however, the decades-long decline in the biopharmaceutical industry has affected the entire country. With federal investments of over $1.2 billion in the industry to date, the Federal Government is focusing great effort on rebuilding the country’s biomanufacturing capacity.

In addition to expanding federally, we are also working with partner companies to tailor both the program and talent bank to their specific needs. We are currently engaging with leaders in conversations on how to tailor the LSTA to their specific needs so that they can offer this training program to all their new staff and to have our talent bank as their main source for recruiting new talent.
Megalab Group Inc., Canada’s fastest-growing consulting lab for international certification and approval, is unique in North America offering testing services (UL/CSA/ETL/MET/CE) from one “State of the Art” facility. Megalab offers ISO 17025 (A2LA) Accredited, EMC, Product Safety, ISO 9001 & 13485 Quality Management Systems, ISTA, Mechanical & Laboratory Testing Services. We operate from a state-of-the-art engineering facility spanning over 40,000 square feet. Our facility is equipped to handle a wide range of testing requirements (Medical, Hi-Tech, Wireless, Auto), making it a convenient one-stop-shop for all your testing needs. Megalab Group Inc. and its team are committed to meeting and exceeding our customers’ expectations as an industry leader in environmental and related regulatory testing services, through constant business improvement while upholding the highest integrity and quality in stand.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

- Regulatory compliance consultation
- Certification testing
- Growing the medical device industry in Canada
- Helping incubator products from various universities come to market

MAJOR INVESTMENTS / ACQUISITIONS:
Facility in Aurora, Ont.

BARRIERS TO SUCCESS

- Competing with government organizations.
- We offer a different solution for most startups rather than dealing with bureaucracy.
- Offering an alternative to current regulatory business structure.
- “Everything under one roof”

KEY WINS

- Government funding cooperation for startups
- Incubator partnerships with most universities
- Seminar series offered to most incubators in Ontario and Quebec

LOOKING FORWARD

- Offering an alternative to current regulatory business structure.
- “Everything under one roof”
- Grow revenue and offer most services to startups that are trying to launch to various (including global) markets.
Currently, interventions surrounding known virus infections focus on treatment: to accelerate viral clearance and to reduce symptoms. Ness Therapeutics aspires to transform the respiratory virus infection drug market from “treatment to cure” to “protection from infection” via prophylactic application for known and newly emerging viruses.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

Opportunity:
- Respiratory infections are a global health problem causing a significant amount of mortality and morbidity in individuals of all ages
- Limited, poorly effective treatments are currently available for known infections
- There continues to be emerging drug resistance and viral mutations rendering antibodies and vaccines less effective
- High probability for virus outbreaks
- Protection from all respiratory virus infections is required
- Economic cost to healthcare systems is high
- Economic cost of work absences and overall supply chain disruptions
- Social cost of lost productivity across all age groups impacting physical and mental health

Vision:
- Transform the respiratory virus infection drug market from “treatment to cure” to “protection” via prophylactic intervention for known and newly emerging, unknown viruses
- Disrupt and move beyond more traditional approaches of vaccines and pathogen-targeted therapeutics
- Learn from our innate immune system
- Establish a virus-agnostic strategy
- Block transmission from infected individuals

BARRIERS TO SUCCESS
The biggest hurdle this year has been the biotech economy from an investment perspective however we’re navigating through with caution. Future hurdles we’re anticipating to have to tackle would be the -
- clinical trials costs and availability
- regulatory approval timing and availability
- overall funding as we progress through the typical business stages
- overall market conditions as we progress through the typical business stages

KEY WINS
- prevention of lung disease in SARS CoV-2 patients
- inhibition of avian flu and pandemic H1N1 replication in human lung explants
- accelerated virus clearance, absence of inflammation and reduced lung abnormalities in SARS CoV-2 infected cases
- Prophylactic treatment of uninfected, SARS CoV-2 exposed contacts protected from infection --- most significantly when exposed to an infected individual with a high viral burden

LOOKING FORWARD
In 5 years’ time, Ness Therapeutics will be completing its clinical trials, will have selected multiple partners to scale-up and commercialize its product, N001, and commenced its investment to build a Canadian CDMO.
Our company uses a unique artificial intelligence that I developed as the founder of NetraMark that has been designed and trained to help pharmaceutical companies understand their clinical trial patient populations with as much clarity as possible. The NetraAI discovers multiple factors that can be used to characterize which patients are responding to the drug, to the placebo, and why. This in turn is used by the physicians and scientists running the trial to better prepare for their pivotal trial. So, the technology uses up-to-date information from past trials in order to learn as much as possible about why patients respond to both drug and placebo, why they do not, and why there may be adverse events. This is then translated into precise characterizations of patients that are then used to make clinical trials more successful. Ultimately, we are finding a more helpful way of defining diseases so that we can get life-improving medicine to patients.

Doing this required creating a unique kind of AI that can learn from small data and find what is possible to learn about the patients for each unique clinical trial data.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

There is a major challenge for artificial intelligence to provide explainable insights about patient populations for pharmaceutical companies. The main problems are the following:

- Clinical trial patient populations are small and difficult to use on their own to train standard deep neural networks
- Even within a disease state, like breast cancer or major depression, the patients are so different from each other in ways that we do not yet understand, that we require methods that can actually reveal these subpopulations
- Patients change in terms of how they respond to placebo and even to how they respond to medication. This means that companies that are trying to collect past data about trials will likely not be able to “move the needle” for pharmaceutical companies.

NetraMark has been focused on solving these issues over the last 6 years and I as the founder have been working on it as an academic for 12 years.

MAJOR INVESTMENTS / ACQUISITIONS:
I sold NetraMark Corp to a public company called Nurosene which was rebranded to NetraMark Holdings. This allowed me to focus on the science and tech behind NetraMark while partnering with some serious business people with ties to pharma.

BARRIERS TO SUCCESS
The grind to get the right meetings in pharmaceutical companies and to then get the data was surprising in its intensity. NetraMark was early. We had a special technology because of the excellent scientific mentorship I had in mathematics, physics, computer science, and medicine. The vision was correct, but it was premature. Pharmaceutical companies were not yet ready for what I was talking about back in 2018 and 2019. Then COVID happened and everyone’s focus was affected. I had to move homes and set up an office near my house in East Toronto where I essentially lived. I set up a gym in the office, places for my engineers to work, an office and I put in about 100 hours a week to find the right path forward to keep NetraMark alive. Now it seems, that these companies who were unready are now putting people in place specifically to find companies like NetraMark.

KEY WINS
NetraMark’s recognition by influential Canadian business figures was pivotal. Starting with millions raised alongside my co-founder Ricky Brooks, my initial success lay in his belief in me. Our early accolades included impressing a Silicon Valley investor, Barney Pell, during the inaugural Quantum Creative Destruction Labs session and collaborating with DWave on quantum computational modelling for lung cancer subtypes. Seeing the NetraAI self-discover how to optimally model placebo response in a psychiatric data set, given to me by a large pharmaceutical company, was the first time I realized that NetraMark could be a winner.

Post-COVID challenges eventually led to a win where I sold NetraMark and watched it go public, a significant achievement. But the pinnacle was witnessing the capabilities of NetraAI, developed by my outstanding team. The code evolved into a transformative AI application, uniquely deciphering insights in oncology and ALS and standing out in global Kaggle competitions.

LOOKING FORWARD
Our future is promising. Perfecting our messaging remains ongoing, but our software’s self-learning and hypothesis validation capabilities stand out. A game-changer is our ability to enhance a drug’s success probability by redefining its effectiveness through deep patient understanding. While many drug discovery companies exist, few can genuinely shift a drug’s trajectory as we do. It’s evident that pharmaceutical and biotech companies need to know their patients more intimately. I’ve witnessed the demand; pharmaceutical and biotech companies are now seeking us out. They realize minor adjustments in their clinical trials can lead to significant breakthroughs. They also recognize their drug might substantially benefit a specific patient subgroup, and they see NetraAI as the key to identifying these fingerprints. Our unique technology illuminates insights on niche patient groups, fully interpretable, managing the vast combinations inherent in such tasks. We simplify the immense complexity, offering pharmaceuticals an essential solution they’re actively seeking. Watch us grow!
All too common, are stories of patients with complex immune diseases struggling to find the right drugs for their unique challenges. Where unfortunately, these patients cycle through multiple trial-and-error treatment failures simply to keep pace with their disease, worrying not about the “what ifs”, but the “when” of treatment failure.

Noa Therapeutics, is a pre-clinical biotech company seeking to redefine this current treatment paradigm. At Noa, we are leveraging our experience in inflammatory and regenerative medicine to defy convention and change the way complex immune diseases are treated.

At Noa Therapeutics, we are creating the first and only tri-modal therapeutics, designed to specifically target 3 main drivers of immune diseases involving barrier dysfunction. This unique approach aims to transform the treatment of complex immune disease, breaking the cycle of patients’ trial-and-error treatment failures.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

Our immune system’s first line of defense are barriers such as our skin, gut, eyes, and lungs. Impairment of these barrier, due to environmental and genetic factors, results in complex immune diseases involving barrier dysfunction.

Current drugs address disease drivers in isolation, focusing on relief of symptoms. These drugs have limited efficacy and serious side effects, leading to poor compliance and patient outcomes. Leaving 89% of patients dissatisfied and 65% of patients feeling that their disease is controlling their lives.

Noa Therapeutics is on a mission to provide hope to patients; to give them control over their disease, to give them back their lives.

Noa Therapeutics is developing, non-steroidal, tri-modal small molecules, to simultaneously address three key disease drivers. Starting with a first indication for atopic dermatitis (Eczema), Noa aims to help the nearly 17M in North America struggling with this disease. By tailoring the therapeutic activity of our novel library of small compounds, Noa has the potential to address unmet needs in nearly $100B in inflammatory barrier diseases markets.

MAJOR INVESTMENTS / ACQUISITIONS:
$1.375M dilutive and > $350K in non-dilutive funding

BARRIERS TO SUCCESS

Creating inclusive opportunities for success is critical to building the next generation of young innovators in Ontario and continue the growth of the life sciences sector in Canada. Noa is proud to lead a company, where senior management is 100% women and 50% people of colour, with a board composition that is 67% women, and investor composition is 43% women.

Noa Therapeutics is committed to supporting those around us, to bringing up those in the community who are underrepresented; supporting and initiating programs which provide inclusive opportunities for success. Noa is grateful to the Ontario Biosciences Innovation Organization Women in Health Initiatives, MentorShe, Elevate Women in Entrepreneurship, Canadian Women’s International Network, and the Canadian Women’s Network. We at Noa Therapeutics are privileged to have both participated and supported these programs and we thank these groups for their tireless efforts lift up the next generation of inclusive innovators and leaders.

KEY WINS

In their first short year since incorporation, Noa has filed key provisional patents, were finalists in the Global Sanofi Golden Ticket Challenge, entered into the CDL Global Advanced Therapies, were accepted in the JLABS, and established platform potential to address unmet needs in over $100B of inflammatory disease markets. This early traction has enabled Noa to secure nearly $2M in dilutive and non-dilutive funds, driving Noa to open oversubscription for their first fundraising round.

Not only has Noa been fortunate to see this tangible success, but we have also had the opportunity to pay it forward. Noa would not be where they are without those persons, programs, and organizations that have supported them. Noa strives to transfer our knowledge to others in the community, strengthening those around them; building the Ontario and Canadian ecosystem into the community Noa has been fortunate enough to be a part of.

LOOKING FORWARD

Noa is a Māori notion meaning freedom from restrictions or convention; an absence of limitations. At Noa, we are driven not only to address unmet needs and strive for commercial success, but to empower the younger generation of underrepresented innovators, entrepreneurs, scientists, and leaders of tomorrow.

Noa aims to break the mold of traditional therapeutics to deliver meaningful solutions to patients living with complex inflammatory diseases. Addressing unmet needs, while leveraging unprecedented reimbursement pathways, we will target adoption into underserved populations. Expanding, not only the market potential for our lead indication in eczema, but broader opportunities in the inflammatory disease space.

Noa not only aims to break the mold of traditional therapeutics, but part of our mission is to drive social change in our community. Integral to our journey will be the continuous development of our internal skills and expertise. Noa’s dedication is not only to commercial success, but to create a thriving, and supportive environment to foster the development of the next generation of scientists, entrepreneurs, and innovators within the life science sector in Canada.
Novartis Canada
www.novartis.com/ca-en/

**Sector:** Pharmaceuticals  
**Countries/ markets of focus:** Global (operations in more than 140 countries)  
**Year founded:** 1996  
**Number of Employees:** 900+ (Globally 106,000)

As a leading pharmaceutical company, Novartis provides Ontarians with medicines to improve their health and quality of life. Our purpose is to reimagine medicine by using innovative science and technology to address some of society’s most challenging healthcare issues.

Novartis is committed to working with all stakeholders within the healthcare ecosystem to ensure that every Ontarian has equitable access to the medicines they need. This includes supporting patients through the entire care journey --- from drug development, to diagnosis, to access and beyond. Part of the way we are doing this is by leveraging data, technology, and partnerships.

In Canada, Novartis employs approximately 900 people to serve the evolving needs of patients and the healthcare system and invests over $30 million in R&D every year. In 2022, we supported 150 clinical trials throughout Canada. Our core therapeutic areas are oncology, cardiovascular, neuroscience, and immunology.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

Novartis's purpose is to reimagine medicine to improve and extend people’s lives. We use innovative science and technology to address some of society’s most challenging healthcare issues. We discover and develop breakthrough treatments and find new ways to deliver them to as many people as possible.

**BARRIERS TO SUCCESS**

With the rise of innovative therapies and precision medicine, it is vitally important for Ontario to get ahead of the curve and prepare the healthcare systems and infrastructure for what will define the future of healthcare in the province. As Novartis continues to lead on novel and innovative therapies, like radioligand therapy and CAR-T cell therapy, we want to ensure the province works with industry and other partners so patients can receive the diagnostics and medicines they require.

Novartis also believes it is important for Ontario to take advantage of the health and economic benefits that exist within the system by utilizing data to ensure Ontarians can benefit from a modern and efficient healthcare system.

**KEY WINS**

With the strength and opportunities that exist in Ontario’s life sciences sector, Novartis recently made the decision to open a new office in Toronto. Located in the MaRS Discovery District, Novartis sees this as an opportunity for our associates to connect and collaborate in North America’s largest urban innovation hub, while also helping to build our company’s operations within the province.

The vision presented by the Ontario government’s Life Sciences Strategy, championed by Life Sciences Ontario, has also reinforced Novartis’s commitment to explore new opportunities with partners in the province to find ways for Ontario innovation to improve healthcare in Ontario.

**LOOKING FORWARD**

With a deep sense of purpose, Novartis looks toward a healthier future that’s within reach. Our aim is to generate impacts people can feel in their everyday lives. In just the past few years, multiple new types of treatment - a new generation of medicines - have been approved globally and are reaching patients, including RNA therapies, RNA vaccines, and cell, gene and radioligand therapies. We are continuing to invest to ensure we can translate scientific advances into widespread human progress.

In Ontario, this means collaborating and partnering with stakeholders from across the healthcare ecosystem, including academia, government, patient groups, and all healthcare system partners. We are also looking to leverage Ontario's talented life sciences workforce and expand our operations in the province over the coming years while working to find solutions that will help to modernize the province’s healthcare system.
Novo Nordisk is a leading global healthcare company, founded in 1923 and headquartered in Copenhagen, Denmark. Our Canadian head office is in Mississauga, Ontario. Our Canadian head office is in Mississauga, Ontario. Our purpose is to drive change to defeat diabetes and other serious chronic diseases such as obesity and rare blood and endocrine diseases. We do so by pioneering scientific breakthroughs, expanding access to our medicines and working to prevent and ultimately cure the diseases we treat.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

We are driven by our purpose to defeat diabetes and other serious chronic diseases including obesity, haemophilia and growth hormone disorders. While innovation is our core contribution to this fight, we know that there are other factors in healthcare that present the biggest barriers.

Prevention is a vital pillar in our strategy to defeat type 2 diabetes. Diabetes and obesity prevalence continue to grow on all continents and the burden on individuals, families, workplaces and society is large and growing. Ensuring access to our medicines will help reduce the burden for people with chronic disease but we must also work to prevent these diseases from developing in the first place. Our aim is to find, pilot and scale effective interventions to prevent both diabetes and obesity. Globally, these efforts are evidence-based and partnership-driven for the greatest possible impact.

**MAJOR INVESTMENTS / ACQUISITIONS**

On August 10, 2023, Novo Nordisk A/S and Inversago Pharma announced Novo Nordisk has agreed to acquire Inversago for up to 1.075 billion US dollars in cash if certain development and commercial milestones are achieved. Inversago Pharma is a private, Montreal-based developer of CB1 receptor-based therapies for the potential treatment of obesity, diabetes and complications associated with metabolic disorders.

**BARRIERS TO SUCCESS**

Novo Nordisk Canada applauds the government for the tremendous commitment it has made to improving health care in Ontario.

The biggest challenge facing this commitment is to ensure that the strategy is developed and implemented to its full potential. Effective management of chronic diseases is imperative to ensuring health care and financial sustainability in Ontario, which requires this work to become and to remain a priority in Ontario.

**KEY WINS**

In Ontario, diabetes affects 1 in 3 people. It is a leading cause of blindness and it contributes to 30% of strokes, 40% of heart attacks, 50% of kidney failure requiring dialysis, and 70% of all non-traumatic lower limb amputations.

Since 2020, Novo Nordisk Canada and Diabetes Canada have advocated to the Ontario government for the establishment of a provincial diabetes strategy that leverages the proven approaches of Ontario Health with respect to Ontario’s cancer system.

The Ontario government has responded by committing to a provincial chronic disease strategy with an initial focus on diabetes to be developed and implemented under the leadership of Ontario Health. This is reflected in the previous two mandate letters from the Ministry of Health to Ontario Health, in Ontario Health’s 2022/23 business plan and most recently by a motion that was by MPP Robin Martin - Motion 45 - that was carried on April 19, 2023.

**LOOKING FORWARD**

To address the unsustainable and rising rates of chronic diseases, Novo Nordisk Canada is convening a wide range of partners with diverse expertise to innovate new solutions to chronic disease reduction, beginning with obesity. It is our goal that this approach will be adopted by interested partners and governments across Canada.

Approximately $200 billion – or 60% – of Canadian healthcare costs are a direct consequence of chronic diseases like diabetes, heart disease, cancer, mental health, and dementia. Obesity is the single biggest risk factor for developing these deadly diseases. Preventing, detecting, and treating obesity is one of the most efficient and effective way to manage healthcare costs and improve the health of Canadians.

Inspired by Denmark’s “health and wealth” approach, CAN-SHINE will fund targeted innovation challenges to develop and trial cross-sectoral obesity and chronic disease solutions through improved prevention, early detection, and treatment.

Innovation and investment across key areas of social, human, environmental and physical capital can be brought together to bring results for everyone. Such projects can show how “tipping point” coalitions of stakeholders can drive positive impact quickly, cost-effectively and with the potential to expand.

Companies like Novo Nordisk can and do have a positive role to play in fast-tracking such projects.
Nyta Labs Inc.  
(operating under Nyta Health)  
https://nytialabs.com/

**Sector:** Innovation & Research  
**Digital Health**  
**Countries/markets of focus:** Canada, USA  
**Year founded:** 2021  
**Number of Employees:** 6  
**Projected number of employees in 3-5 years:** 50

Under strict data privacy, confidentiality and regulations, Nyta Health uses employees’ family history, existing conditions, biometrics data, nutrition data and other health-related data to predict the chronic conditions they are the most at risk. And provides personalized recommendations for them to maintain a healthy and productive life. Upon consent, they could share some of their data with family doctors and personal healthcare specialists to anticipate serious health issues.

For their employers, Nyta Health provides community health insights to guide them through their workplace wellness policy change that better supports employees. We also provide a dashboard that measures the impact we’re having on them.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

Statistics show us that our economies and healthcare systems are still suffering a lot, despite all the efforts being made to fight chronic conditions. And living with a chronic condition can be very frustrating and life-threatening, leading to an unhappy, anxious and depressive life. And businesses can’t fully benefit from their employees living with it or at risk of it. Failing to support and empower employees at workplaces could be hurtful to talent retention and productivity.

12% of US adults live with more than 5 chronic diseases. In North America combined, it costs businesses $547 billion in productivity loss every year.

We use a perfect combination of AI algorithms, well-established evidence-based models and a high-quality dataset we’ve collected between 2018-2021, to better support our stakeholders.

**BARRIERS TO SUCCESS**

Nyta Health has been bootstrapping since the beginning of its journey. Easy to say that funding has been our biggest challenge, followed by team management.

**KEY WINS**

Nyta Health is proud to announce we were selected from 1,500 companies as a Finalist for The Digital Health Hub Foundation and Digital Health Awards 2023 in the Rising Stars - Employer Subsidized Wellness! The Digital Health Awards honour outstanding health technologies and innovations dramatically transforming healthcare. More information can be found following this link: https://www.digitalhealthhub.org/awards/2023/home

Winners will be announced at the Grande Finale by October 9th in Las Vegas, at HLTH.

Commitment, resilience, patience and hard work led to this achievement.

**LOOKING FORWARD**

We are looking forward to launching our pilot phase before 2024. In 5 years, Nyta Health would like to be a leader in preventative care delivery across North America, with a high impact on our economies and our communities, lowering the chronic conditions admissions/readmissions at hospitals.
Pfizer Canada ULC is the Canadian operation of Pfizer Inc., one of the world’s leading biopharmaceutical companies. Our diversified healthcare portfolio includes some of the world’s best-known and most prescribed medicines and vaccines. We apply science and our global resources to improve the health and well-being of Canadians at every stage of life. Our commitment is reflected in everything we do, from our disease awareness initiatives to our community partnerships. To learn more about Pfizer Canada, visit pfizer.ca or you can follow us on LinkedIn, Facebook, Twitter or YouTube.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?
Pfizer Canada ULC launched its Healthcare Hub, an initiative with Canadian tech and innovation startups to scale up health solutions, with the goal of enhancing outcomes and the patient experience in important areas of need in Canadian healthcare. Innovations will be brought to life through a partnership between Pfizer Canada and Canadian technology supercharger Communitech. The partnership combines Pfizer’s clinical development expertise with the proven entrepreneurial know-how of Communitech, which has helped tech talent launch and scale businesses for over 25 years. Together we issued an open call for tech startups and talent in tech to help meet challenges in the areas of vaccination tracking, drug shortage planning, patient drug coverage and access, women’s health and oncology diagnostics.

The backing from Pfizer for these innovators will range from in-kind support to significant business donations to help design, develop, manufacture, and scale their respective solutions. These substantial investments reflect Pfizer’s goal of acting as a true accelerator for digital solutions that will bring a meaningful contribution to redefining healthcare in Canada.

KEY WINS
On October 16, 2023, Pfizer Canada announced the winner of the 2023 Healthcare Hub “Call for Solutions”. In all, 30 solutions were submitted against four of the five challenges issued. Three winning organizations were selected following a quantitative and qualitative adjudication process by Pfizer Canada and other health system stakeholders that considered factors including market readiness, desirability of the solution to eventual users and scalability. Pfizer has committed to providing significant support across this cohort of the Healthcare Hub “Call for Solutions” winners. Support in bringing solutions to market is also provided by Communitech who offer a suite of growth resources targeted at helping homegrown innovations succeed.

LOOKING FORWARD
The first iteration of the Pfizer Canada Healthcare Hub’s “Call for Solutions” was very successful - providing both high volume and high quality of submissions. Pfizer remains committed to exploring emerging areas of collaboration in the health sector and new and evolving technologies to improve patient outcomes. In Canada, we’re surrounded by diverse and ambitious talent as the country continues to gain prominence on the world stage of innovation. With our strengths and with partnership opportunities, we can continue to push boundaries to get ahead of the needs of Canadians.

Rapidly evolving technology has the potential to help uncover innovative solutions. To elevate Canada’s life sciences ecosystem and achieve the innovation we seek, cross-sector collaboration is essential and at the core of continuing to bring new and innovative therapies to patients. Canada is a global leader in artificial intelligence (AI), and is creating innovations at a faster pace than its international peers. Pfizer Canada aims to become trusted collaborators with the startup community to help bring scalable health solutions to life.
Roche is a global pioneer in pharmaceuticals and diagnostics focused on advancing science to improve people’s lives. Roche is one of the largest biotech companies, with differentiated medicines in oncology, immunology, infectious diseases, ophthalmology and diseases of the central nervous system. Roche is also a leader in in vitro diagnostics and tissue-based cancer diagnostics, and a frontrunner in diabetes management.

Roche aims to improve patient access to innovations by working with stakeholders across the entire healthcare sector to provide the best care. Globally, Roche has been recognized as one of the most sustainable companies in the pharmaceuticals industry by the Dow Jones Sustainability Indices for 13 consecutive years. Roche Canada is also actively involved in local communities through its charitable giving and partnerships with organizations that help improve the lives of Canadians.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

With combined strengths of pharmaceuticals and diagnostics, and growing capabilities in data-driven health insights, Roche is equipped to deliver personalized healthcare. By understanding genetic differences between individuals and tailoring treatments to the right person at the right time, the efficacy and safety of medicines can be improved, while also reducing healthcare costs. To further enable the realization of personalized healthcare, Roche is harnessing the power of artificial intelligence, data, and insights to bolster our expertise in the areas of medicine, diagnostics and digital health solutions. Partnering with the patient community to understand their everyday lives is essential to evolve the way we look at diseases. It is through collaboration that we can personalize healthcare, developing better medicines and diagnostics.

BARRIERS TO SUCCESS
As a member of Ontario’s vibrant life sciences ecosystem, Roche Canada advocates for the integral role of our sector in improving the health of Ontarians and energizing our economy. We are pleased to see the inclusion of the direct connection between economic development and health with the introduction of the Ontario Life Sciences Strategy. We will continue to advocate for recognition and adoption of innovations.

However, our healthcare systems are in crisis.

Canada ranks 18 out of 20 OECD countries when looking at the length of time patients have to wait for access to new innovations. It’s not enough for pharmaceutical companies to deliver breakthrough medical innovations. We must also work with stakeholders across the health ecosystem to ensure those innovations can deliver their full benefits.

Health data is a powerful tool that can be used to inform healthcare decisions and achieve improved health outcomes. However, to harness the full potential of health data, there is a need to modernize privacy regulations to allow for the use of secure health information and remove barriers to data integration. The modernization of these regulations, coupled with targeted investments in infrastructure will allow access to high-quality, reliable data to enable data-driven decision-making at all levels of the healthcare system so that patients can receive the right innovation at the right time.

KEY WINS
Roche Canada is proud to be a leader in the healthcare and life sciences sectors in Canada. We recognize our vital role in delivering critical innovations, including diagnostics and medicines, to Canadian patients.

In 2022, more than 290,000 Canadians were treated with Roche Medicines and 1 in 4 Canadians were tested using a Roche Diagnostic product. Additionally, there were 190 active Roche clinical trials in Canada with 869 new patients and 1,891 total active patients.

It’s not enough for pharmaceutical companies to deliver breakthrough medical innovations. We must also work with stakeholders across the health ecosystem to ensure those innovations can deliver their full benefits. So for Roche Canada, it is hugely critical that we all collaborate across our health systems (private and public partners), to find better ways to support our patients.

Roche Canada is also proud to be recognized as one of Glassdoor’s Best Places to Work for both 2022 and 2023. In 2020, Roche Canada announced an investment of 500 jobs in Ontario through the establishment of a Global Pharma Technical Operations site at the pharmaceutical headquarters in Mississauga. Recruitment is ongoing for these highly skilled jobs and we are confident of our ability to fill the totality of these roles in the near future.

LOOKING FORWARD
We are at a pivotal moment in the history of healthcare, with an unprecedented convergence of medical and scientific knowledge, technology and data science working together to revolutionize how we diagnose, treat and even prevent diseases. And these scientific innovations are only getting better. For example, tumour-agnostic therapies, as well as cell and gene therapies, are all evolving very quickly.

As a strategic collaborator, we are also collaboratively identifying novel elements of value in payor decision-making. Investments in healthcare should consider the total cost of treatment, including the societal costs that can be averted through shorter waiting times, fewer hospital admissions, less time spent in hospital, quicker recovery times and earlier return to work.

Now is the time to act and to move forward.
A technology developed by SharkBiit uses routine dental CT imaging to detect hidden signs of chronic medical conditions, such as Obstructive Sleep Apnea (OSA). Approximately, one billion people suffer from this disorder, and 80% of them remain undiagnosed. In addition, CPAP machines are considered to be the gold standard when it comes to treatment. However, 55% of people are intolerant to CPAP, which is considered the gold-standard of OSA treatment. Oral appliances are a popular growing OSA treatment alternative, however only a small number of dentists are knowledgeable enough to select the right device and deliver it effectively. Referral, medical billing, and reimbursement are additional barriers preventing dentists from offering sleep apnea diagnosis and treatment as an additional service and revenue stream. SharkBiit provides AI-driven end-to-end platform for detection, treatment recommendation, referrals, and medical billing in Sleep Dentistry.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

• Unique opportunity to re-use and re-purpose of enormous amount of available data and images from dental clinics.
• Problem 1. Eighty percent of patients with OSA are undiagnosed.
• Problem 2. Fifty-five percent of patients with OSA are intolerant to the gold standard treatment CPAP machine.
• We provide seamless mass screening and AI-driven treatment recommender.

BARRIERS TO SUCCESS

Barriers are taken into consideration: regulation, data privacy, medical billing

KEY WINS

• Award-winning startup - Merage 45+ competition among 327 startups - 1st prize and $100K
• IP - two pending patents
• Hard-to-find high-quality dataset acquisition
• High accuracy of OSA detection algorithm performance
• Pilot with several Sleep dentistry clinics is started
• Clickable prototype for patient onboarding

LOOKING FORWARD

• Number of clinics > 1,000
• Number of scans > 750,000
• Number of referrals ~ 200,000
• Number of industry players on our platform as many as possible
• To be a leader in AI-driven technology in Sleep medicine and dentistry
Siemens Healthineers AG pioneers breakthroughs in healthcare. For everyone. Everywhere. As a leading medical technology company headquartered in Erlangen, Germany, Siemens Healthineers and its regional companies are continuously developing their product and service portfolio, with AI-supported applications and digital offerings that play an increasingly important role in the next generation of medical technology. These new applications will enhance the company’s foundation in in-vitro diagnostics, image-guided therapy, in-vivo diagnostics, and innovative cancer care. Siemens Healthineers also provides a range of services and solutions to enhance healthcare providers’ ability to provide high-quality, efficient care.

For more than 100 years, Siemens Healthineers in Canada has stood for engineering expertise with a pioneering spirit in exploring and developing business opportunities to help healthcare providers achieve their goal of improving outcomes while reducing costs. From the Atlantic to the Pacific oceans, our 1,500+ employees in Canada work together to deliver solutions for healthcare providers, resulting in 70 percent of medical decisions being influenced by the technologies we provide.

Siemens Healthineers entered into a 15-year Value Partnership with the William Osler Health System, inclusive of the Etobicoke General Hospital, the Brampton Civic Hospital, and the Peel Memorial Centre for Integrated Health & Wellness. This Value Partnership has enabled the replacement of nearly 90% of all technology under contract, 100% financing for diagnostic imaging technology, management of a total of 181 technology systems from 18 different vendors, and equipment procurement totaling 38 requests for proposal. As a result of these key services, the William Osler Health System is better positioned to use new technology to improve patient outcomes and experience, as well as attract top-quality staffing talent.

Similarly, the Hamilton Health Sciences Value Partnership has been implemented smoothly, with no gaps in care during the transition. So far, the partnership has provided 500 systems to meet the diagnostic imaging and monitoring needs of each of the facilities within the Hamilton Health Sciences network --- including magnetic resonance, ultrasound, mammography, X-ray, computed tomography, angiography, advanced therapies, molecular imaging, electromyography, echocardiograms, and fluoroscopy. The Value Partnership has also maximized uptime with streamlined utilization of technology from eight vendors, and accelerated technology procurement, with 58 RFPs evaluated and scored so far. Additionally, the partnership between Siemens Healthineers and Hamilton Health Sciences has provided ongoing training and education to staff to optimize care and improve patient outcomes.

LOOKING FORWARD
Siemens Healthineers’ vision is to shape the future of healthcare by pioneering innovations in medical technology and services that improve the diagnosis, treatment, and overall healthcare experience for individuals and communities in Canada. We strive to be a trusted partner for healthcare providers, offering solutions that enhance patient outcomes, increase efficiency, and expand access to high-quality care. Siemens Healthineers aims to be at the forefront of healthcare transformation, harnessing the power of digitalization, data analytics, artificial intelligence, and precision medicine to drive advancements in the field of healthcare and ultimately make a positive impact on people’s lives.
The Stem Cell Network (SCN) is a Canadian not-for-profit that supports three main objectives: stem cell and regenerative medicine (RM) research; training the next generation of highly qualified personnel; and supporting the knowledge mobilization and transfer of stem cell and regenerative medicine research. SCN's vision is to power life-saving therapies and technologies through regenerative medicine research for the benefit of all.

Created in 2001, with support from the Government of Canada, the Network has grown from a few dozen labs to more than 270 world-class research groups, supporting over 250 research projects and 30 clinical trials. Since its inception, over 25 biotech companies have been catalyzed or enhanced and more than 6,400 highly qualified personnel have been trained. In 2021, the Government of Canada demonstrated its continuing trust and support in SCN with an investment of $45 million for the 2022–2025 period.

KEY WINS
During this past year alone, SCN-funded investigators from coast to coast have made important advancements in areas such as diabetes, cardiac disease, lung and liver repair, muscular dystrophy, and neurodegenerative diseases. This past year also saw the enhancement of several Canadian regenerative medicine and biotechnology companies such as Satellos Bioscience, Notch Therapeutics, Aspect Biosystems, and Axolotl Biosciences.

Perhaps most notably, in spring 2022, SCN released the results of its largest funding competition to date, which saw $19.5 million for 32 stem cell and regenerative medicine research projects and clinical trials. Later that fall, SCN launched a second funding competition, with results released in spring 2023, which saw an additional $8.92 million in research funding for 24 research projects and clinical trials. When combined, this is a total of $28.4 million in funding dollars into the stem cell and regenerative medicine sector, with $31.8 million in partner funding for 56 projects in 26 disease areas, involving more than 550 researchers, clinicians, and trainees. This is by far the largest injection of funding in SCN history.

LOOKING FORWARD
Powered by two decades of success, SCN is a central driver of Canada’s life sciences ecosystem, and the only national network with a proven track record for continued excellence and impact in regenerative medicine. With its three-year strategic plan, IGNITE, SCN is pushing forward in building a more robust research and training ecosystem that will fuel next generation science, build global partnerships, and train the scientific and business leaders of tomorrow. SCN is now planning out to 2030 with an ambitious strategy that has already led to partnership commitments valued at over $100M. Together with its partners and continued federal support, SCN will deploy nearly $200M into Canada’s regenerative medicine sector that will:

- ADVANCE regenerative medicine research to clinical translation through support of hundreds of multi-disciplinary research teams across the country
- EXPAND regenerative medicine clinical trials activity that will benefit hundreds of patients from coast to coast to coast
- ACCELERATE growth in Canada’s regenerative medicine sector by training the next generation of globally competitive talent

By 2030, Canadians can expect that SCN will have fueled leading-edge, made-in-Canada therapies and technologies that will not only provide economic benefits but offer leading-edge, life changing health solutions.
TeleVU Innovation Ltd.
www.televu.ca

**Sector:** Healthcare, Digital Health  
**Countries/ markets of focus:** Canada, US, Africa and select European and Middle Eastern countries  
**Year founded:** 2021  
**Number of Employees:** 6  
**Projected number of employees in 3-5 years:** 20  

TeleVU (pronounced Tele-View) is an Ontario-based software company that specializes in developing innovative remote medical assistance and patient monitoring solutions, employing IoT devices such as Smart Glasses and wearable vital sign monitors, as well as augmented reality and artificial intelligence (AR/AI). Their exclusive telepresence system establishes secure AR/AI-enriched video calls through Smart Glasses, connecting frontline healthcare providers with remote clinical experts globally. This redefines access to specialized medical care, medical education, and digital workflow management. The AR and AI technology allows remote experts to provide guidance to on-site clinicians, enabling timely patient care with features like on-screen telestration, virtual hand overlay, image and 3D object overlays, content sharing, and interaction with medical screens. Moreover, clinicians can remotely access medical monitors and various camera views, enhancing training and promoting evidence-based best practices through digital workflows and clinical checklists viewed on Smart Glasses’ AR screens.

**A WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

The global shortage of healthcare professionals results in disparities in healthcare access, clinician burnout, and limited resources in remote areas. Existing telemedicine tools are inadequate for comprehensive assessments. Our technology connects frontline providers with remote specialists, offering real-time AI-enhanced guidance in a versatile platform. This innovation overcomes geographical barriers, improving patient access to healthcare and bringing medical services closer to their homes, addressing critical healthcare challenges.

**BARRIERS TO SUCCESS**

After successfully completing several projects with a high return on investment and improved outcomes, we’ve encountered a significant challenge beyond the initial project funding: there is a lack of funding for scaling our initiatives. At present, numerous interested institutions are eager to adopt our technology, but they face considerable hurdles when it comes to securing financial support. Regrettably, our innovative solutions have faced a more favorable reception outside of Canada. We’ve even encountered obstacles when trying to expand into other provinces, where local companies have competing interests. This contrasts with our experience in Ontario, where, surprisingly, a hospital chose an inferior European technology (primarily due to established relationships and tenure of the company) over our startup.

**KEY WINS**

Advanced wound care is vital for managing complex chronic wounds effectively. However, many remote and rural areas face challenges in accessing specialized wound care due to geographical constraints. Regional Wound Care Programs (RWCP) provide tailored outpatient services for those with slow-healing wounds, considering various aspects of well-being. In Thunder Bay, St. Joseph’s Care Group used TeleVU technology as part of Northwest Ontario’s RWCP, focusing on indigenous communities lacking local Advanced Wound Care Practitioners. The implementation of TeleVU’s technology improved access, patient and provider experiences, and cost-effectiveness (with a remarkable 188% ROI). In summary, TeleVU’s technology in the regional wound care program has proven effective in enhancing advanced care accessibility, improving outcomes, and increasing cost-efficiency, particularly for underserved communities facing geographical barriers.

**LOOKING FORWARD**

TeleVU aims to be integral in local and global healthcare systems, going beyond video feeds for genuine telemedicine experiences. The platform will extend advance care expertise to underserved regions and improve access to surgical procedures in resource-constrained areas. In Canada, the focus is on delivering advanced healthcare to indigenous communities and remote rural areas where access to quality care is limited.
Canada’s largest academic research hospital complex, University Health Network (UHN) has been ranked #1 in Canada’s Top 40 Research Hospitals* since 2011, and our four hospitals are among the top ranking globally. At Commercialization at UHN, we are the catalyst for accelerating UHN’s world-class research discoveries towards maximum patient impact globally. Medical technologies discovered, developed and de-risked at UHN form the basis of products and services improving health care for patients internationally, including therapeutics, devices and diagnostics.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?

UHN world-class scientists and discoveries are at the forefront of solving challenges in health and patient care. At the University Health Network, we are Canada’s medical research commercialization leader --- the fastest growing medical commercialization centre in North America and are the largest driver of medical research and innovation in the greater Toronto region.

Nearly 20 well-financed life sciences companies were initially incubated at UHN and include: BlueRock Therapeutics, Trillium Therapeutics, Adela Bio Inc., Treadwell Therapeutics and AvroBio amongst others, boasting more than $5 billion injected into the economy since 2018 via 6 equity exits and more than $1.3 billion in financing raised for our companies since 2014 --- all from globally recognized investors. All UHN start-ups have major Research & Development operations in Toronto.

RECENT HIGHLIGHTS
- Adela Bio Inc., received a US$60 M Series A in 2021. According to Brian Bloom of Toronto-based healthcare investment firm Bloom Burton & Co., this is the first institutionally-backed company in this field in Canada. It also received a US$48 Series B in early 2023, for a total of US $108 Million.
- Treadwell Therapeutics received a US$91.5M Series B in 2022.
- BlueRock Therapeutics was launched with one of the largest biotechnology investments of its kind, supported by investments from Bayer AG and Versant Ventures. It was acquired in 2019 for US $1 billion and continues to advance regenerative medicine in Toronto and beyond, today.
- 2019 acquired by Bayer AG for US$1 billion.

MAJOR INVESTMENTS / ACQUISITIONS:
$1.3 B CAD total financing since 2014 for our nearly 20 startups; $5.24 B CAD total equity exists since 2018; 6 equity exits in just under 4 years for our companies; these include US$2.22B acquisition of Trillium Therapeutics by Pfizer and acquisition of BlueRock Therapeutics by Bayer (US $1 B). In July 2018 AVROBIO was listed on NASDAQ, which included US$100M in the company’s initial public offering (IPO) on the NASDAQ stock exchange. UHN-formed company Adela Bio Inc., received a US$60 M Series A in 2021. According to Brian Bloom of Toronto-based healthcare investment firm Bloom Burton & Co., this is the first institutionally-backed company in this field in Canada. Treadwell Therapeutics received a US$91.5M Series B in 2022.

KEY WINS
One of our key successes is our unique new venture model, designed to bring UHN medical technologies to maximum patient impact.

Our venture creation approach is somewhat unique for a research hospital and is centred around 3 areas, the “Technology”, the “Team” and the “Terms”.

The Technology - Ideation, Incubation and De-risking: UHN utilizes its in-house capacity to act as an idea scout, incubator, and accelerator for new venture creation. Powered by these capabilities, we launch our ventures at pivotal inflection points ideally when commercial feasibility and potential health impact are sufficiently demonstrated and de-risked to ensure maximal patient impact and success commercially. With fully engaged UHN Resources and Clinical Capabilities, we facilitate access to the entire UHN ecosystem resources including infrastructure, people, UHN cores, materials/data, and clinically related expertise such as KOLs, and conduct of clinical trials.

The Team - Structure Ventures for Global Success
The companies we create are optimally structured to be globally successful, where all parties are well-aligned and incentivized. Our New Ventures are represented through experienced management teams along with scientific founders and critical support from UHN. We ensure the company is launched with experienced top-tier executives and management teams with their primary first goal of securing internationally recognized capital.

Key Participation from Scientific Founders
UHN’s scientific founders are the key scientists behind foundational discoveries powering our new ventures. They are encouraged to participate actively in the new venture creation process at the earliest stage, and then to move into the company to work alongside the management teams. Formal company interactions include consultancy or direct positions such as scientific board membership, CTO, CSO, CMO, etc. as required by the company. We partner with our new ventures and ensure negotiated terms are “Proven, Aligned and Fair”.

LOOKING FORWARD
We continue to focus on maximizing the impact on patients (globally) when it comes to the research/clinical research and discovery generated at UHN’s hospitals and research institutes and leading Canada in the creation of medical research commercialization. We remain committed to helping elevate Canada as the centre of research and discovery commercialization that it is.
The University of Toronto (U of T) is a powerhouse for world-class teaching, scientific discovery, and entrepreneurship. For nearly two centuries, U of T has brought together some of the world’s best thinkers, innovators and inventors. Deeply rooted in one of the world’s most diverse city regions, U of T brings a comprehensive approach to solving complex social, economic and health issues at scale. U of T is a member of the Toronto Academic Health Science Network, one of the largest, most productive, and efficient academic health research and hospital centres in North America and the world. TAHSN is core to Ontario's competitiveness in the life sciences sector. With a vibrant culture of innovation, research partnerships and collaborations with industry partners, TAHSN powers the health and economic security of Ontario.

**WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?**

Building on U of T’s dynamic, world-class life sciences research ecosystem, the University is catalyzing high-impact interdisciplinary research through the Institutional Strategic Initiatives (ISIs) portfolio. The ISIs represent a coordinated effort to launch, grow and sustain large-scale research activities that bring together the research and innovation community to advance Ontario’s strengths in areas such as precision and regenerative medicine, artificial intelligence, healthy aging, fluidic technologies, infectious diseases, and data sciences.

U of T is also responding to the demand for wet lab space, necessary for life sciences companies to invest and grow their operations in Ontario. New facilities include SpinUp, the university’s first wet lab incubator, which will be housed at the University of Toronto Mississauga, and the Schwartz Reisman Innovation Centre’s (SRIC) growing campus. The Centre and its 400,000 square feet of life sciences space will drive leading-edge life science development and bioscience, regenerative medicine, and related research.

**KEY WINS**

U of T’s globally recognized leadership in research and innovation continues to have a major impact on Ontario’s biomanufacturing and life sciences ecosystem. More recently, U of T has been recognized as the second most productive health sciences research university in the world. This success is attributed to the commitment of our researchers, faculty and students to push the boundaries of knowledge, as well as the collaboration the university’s location makes possible. Earlier this year, the University received a $200 million grant from the Canada First Research Excellence Fund to support the Acceleration Consortium (AC). The AC is leveraging AI and robotics to accelerate the design and discovery of new molecules and materials. This consortium is a global coalition of academic and industry partners pursuing applications across sectors, including in pharmaceutical sciences.

**BARRIERS TO SUCCESS**

Ontario’s life sciences sector is experiencing unprecedented growth, leading to increased demand for highly skilled talent, critical lab infrastructure, and commercialization capacity. To ensure the sector can manage these needs, leveraging Ontario’s research, talent and innovation enterprise will be essential in positioning Ontario for success. Ontario’s life sciences companies, universities and the provincial government need to strengthen all stages of the life sciences pipeline, from research discovery to commercialization. As competition from other countries and provinces increases, it will be critical for Ontario’s top research talent and its innovators to be certain they can find the capital they need in this province.

**LOOKING FORWARD**

U of T and its hospital partners will continue to serve as an engine of fundamental research, knowledge translation, innovation and entrepreneurship, bridging Ontario’s life sciences and industrial development strategies with the university research and innovation ecosystem.
The University of Toronto Scarborough has unveiled a remarkable pipeline of young, energetic talent, eager to bridge the gap between academia and the healthcare industry. This resource pool, teeming with inquisitive minds from diverse academic disciplines, is harnessed through the Arts and Science Co-op program, which has been offering a unique approach to student recruitment in the healthcare sector for more than 50 years.

The Co-op Model: The Arts and Science Co-op program propels undergraduate students from more than 35 academic streams to complete two to three employment experiences throughout their degree, beginning after their first year. They have the flexibility to choose from 4, 8, 12, or 16-month terms, commencing in January, May, or September. During these terms, students take on paid positions in various sectors, including healthcare, business, industry, and social services before returning to their studies.

Unlike traditional internships, where students typically undertake paid or unpaid roles during summer breaks, the Arts & Science Co-op program empowers students in their second year and beyond to connect with short-term employment opportunities that align with their chosen field.

A Diverse Talent Pool: The student academic streams encompass a wide range, including life and physical sciences, psychology, mental health and health policy, and more.

WHAT ARE YOU DOING THAT’S UNIQUE? WHAT PROBLEMS ARE YOU SOLVING, AND WHAT IS YOUR IMPACT BEYOND YOUR COMPANY’S WALLS?
Simplifying the Hiring Process for Employers: The team aims to reduce multiple barriers to the hiring process. Employers are offered flexible timelines, and the university team supports them in managing the administrative paperwork. The team supports them at every step starting from the development of a job description, coordinating interviews, or even guiding them to potential funding opportunities. For many employers, the hiring process can be completed within a span of 10 business days.

Supporting the next generation of Life and Health Science professionals: In the realm of healthcare, Co-op-facilitated hires have delved into an array of responsibilities, from lab work to research study support, patient recruitment, administering tests, data analysis, report generation, and even presentations. They’ve excelled in analytics and software development, bringing competence, rapid learning, flexibility, and up-to-date knowledge of current trends to the table.

Fostering Thought Leadership in the Life Sciences Industry
The University of Toronto Scarborough is not content with merely bridging the gap between students and the healthcare sector. It is also championing thought leadership in the life sciences industry. This includes developing and sharing resources like an EDI Employer Guidebook that pertains to equity, diversity and inclusion in an employer’s co-op hiring process. Resources like these help an employer in structuring the EDI building blocks at all levels of talent acquisition and development.

The team also facilitates on campus networking events like LAUNCH (scheduled for every session) where potential employers can meet and interact with co-op seeking students. This way, they can learn more about the quality of talent while the students gain an opportunity to interact with industry experts and learn more about the industry that they wish to work in.

KEY WINS
A Learning Journey: This partnership between students and employers creates a classic win-win scenario. Students gain practical experience, income, and the chance to refine their career aspirations. For some, it reinforces their commitment to their chosen field, while for others, it opens up new horizons and prompts a shift in career direction.

A Boon for Employers: Employers also benefit from this collaboration by accessing high-quality support and a pool of potential full-time staff already familiar with their operations and culture. In an era when retaining trained personnel can be challenging, some students continue to work part-time after returning to school, while others return as full-time employees after graduation.

BARRIERS TO SUCCESS
For healthcare organizations, getting quality student talent through co-op programs is important. However, for a lot of them, they are restricted by a dearth of funds. The Arts and Science Coop Team offers guidance to employers on available funding opportunities and connects them with respective sources. If deemed eligible, these organizations can get access to tax credits or hiring grants/subsidies to fuel co-op hiring for their organization.

LOOKING FORWARD
From the 2025–2026 academic year, a new medical academy at the University of Toronto Scarborough will fill a critical need by training the next generation of healthcare professionals in the eastern Greater Toronto Area. Once operational, the Scarborough Academy of Medicine and Integrated Health (SAMIH) will graduate up to 30 physicians, 30 physician assistants, 30 nurse practitioners, 40 physical therapists and 300 life sciences undergraduates per year. It will also include an expanded life sciences program at U of T Scarborough with increased numbers of students available to be hired for co-op.
About LSO

LSO is a business-led, member-funded, not-for-profit organization with a legacy of more than 30 years advancing the success of Ontario’s life sciences sector. Our customized approach to working with member companies and industry partners allows us to leverage the strengths of the LSO network to commercialize Canadian innovation and technologies, while offering value-added support, services, mentorship, and events.

LSO Vision:
“Diversity of Members, Unity of Voice”
Our vision is a vibrant life sciences sector in Ontario that speaks with a unified voice to create an environment that fosters collaboration, innovation and is recognized as a leading contributor to a better, more prosperous life in Ontario.

LSO Vision:
“Advancing life sciences for a better society”
LSO’s mission is to foster success for Ontario’s life sciences sector through collaboration, advocacy, networking, education, and promoting its innovation locally, nationally, and internationally.

LSO Values

- Consultation, collaboration and consensus building
- Inclusivity, diversity, equity and accessibility
- Alignment of voices in advocacy
- Evidence-based decision-making
- The equal social, environmental and economic benefits of life sciences

LSO advances our sector’s diverse interests by:

- Advocating for cohesive life sciences policy to strengthen this key Ontario sector
- Facilitating economic development and creating data-driven reports
- Mentoring the next generation of life sciences leaders
- Promoting the industry locally, nationally, and internationally
- Acting as a central hub for the life sciences sector
Queen’s Park Day Sponsors