

ACCELERATE

Lives transformed by regenerative medicine



Stem Cell
Network

Réseau de
Cellules Souches



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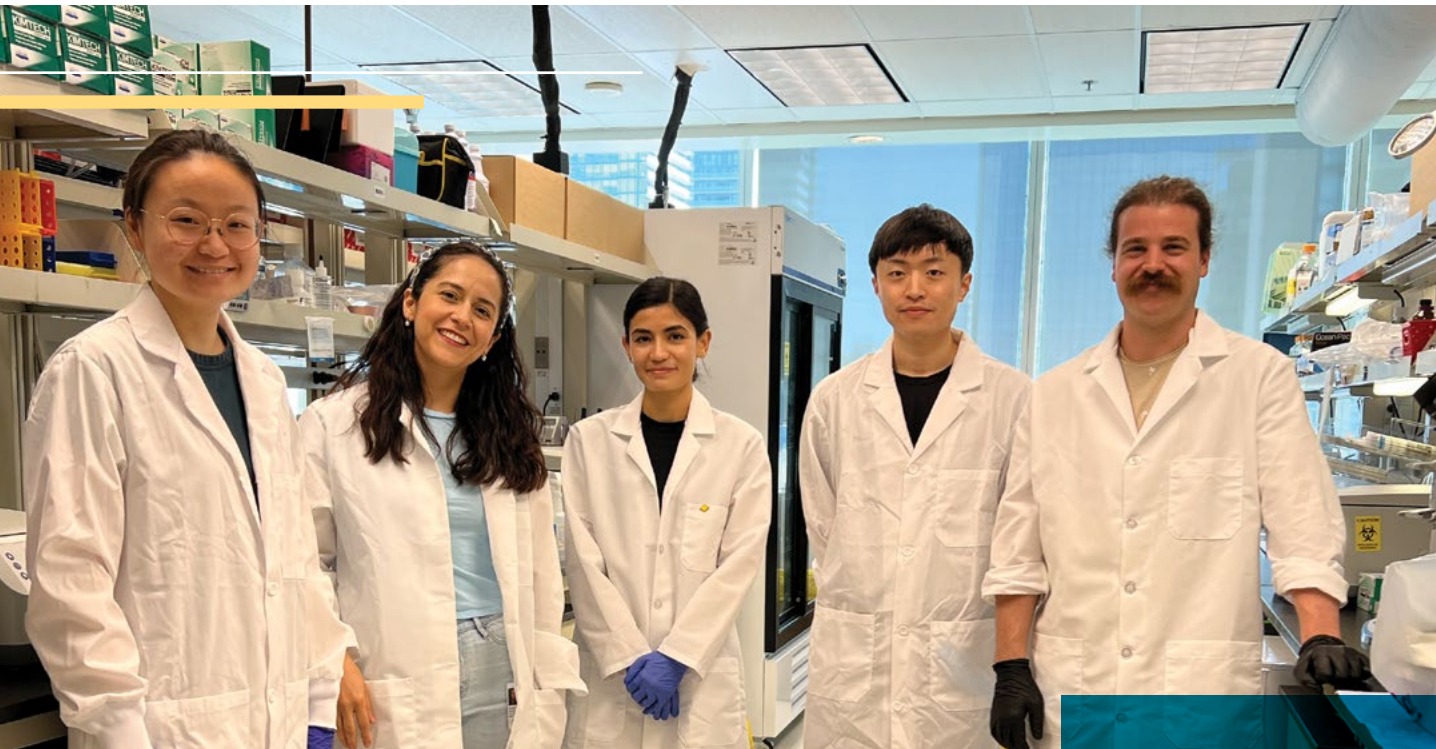
OUR IDEA STATEMENT

The best science is inclusive science. The Stem Cell Network is committed to cultivating and preserving a culture of inclusion, diversity, equity, and accessibility. We value the individual differences, lived experiences, expertise, and knowledge of those in our community. We welcome the unique contributions of partners, employees, and community members regardless of age, ancestry, culture, gender identity, physical ability, race, religion, or sexual orientation. Together, we are powering regenerative medicine.

LAND ACKNOWLEDGEMENT

The work of Canada’s Stem Cell Network occurs from coast to coast and occurs on the traditional, ancestral, and unceded territory of many Indigenous peoples and nations, including the Anishinaabe Algonquin Nation where SCN is headquartered. SCN honours, recognizes, and respects these nations as the traditional stewards of the lands and waters where we work and meet.

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EXECUTIVE SUMMARY

The Stem Cell Network's new strategic plan aims to not only 'accelerate' stem cell research, but to cultivate a vibrant research community, driven by exceptional talent, unwavering excellence, and a shared passion for transformative scientific advances.

Having taken significant steps, through earlier strategic plans, with proven results, the Stem Cell Network (SCN) is now well positioned to drive forward advances with a goal to deliver life-saving innovations for Canadians. *Accelerate 2025–2029*

represents a new phase of activity for the Network and its enduring commitment to support research excellence and a thriving regenerative medicine (RM) sector built on Canadian expertise and ingenuity.

Accelerate anticipates where the science is heading, and the resources and supports the members of Canada's stem cell and RM community will need in the coming years to succeed. Through *Accelerate* SCN will:

- » **Fund research** from development through to early-stage clinical trials
- » **Train the next generation** of talent to take on the jobs of the future
- » **Enhance knowledge mobilization efforts** to ensure the uptake of research produced in the field
- » **Build a robust commercialization readiness program** that will allow for the translation of stem cell and RM discoveries from the lab to patients, to marketplace.

Simply put, people are at the heart of SCN's new and refreshed vision: "Lives transformed by regenerative medicine." People are also the cornerstone of the Network's mandate: "To accelerate regenerative medicine research for the benefit of all."

Across all Stem Cell Network programs, what matters most is people. Whether that involves reaching them through research, training and mentorship in the lab, clinic, or a company; or directly due to innovative therapies received by patients, each day SCN strives to build a legacy that will lead to better health for all people.

RESEARCH FIRST

Two-thirds of the *Accelerate* budget will support research activities. Funding will be distributed across a suite of programs spanning from proof-of-concept to clinical translation, and commercialization readiness. For the 2025–2029 period, SCN has factored inflationary costs for the conduct of research and salaries into its calculations to maintain competitiveness. Two peer-reviewed funding competitions will be held over the course of the *Accelerate* period, with between 50 to 70 projects and clinical trials funded.

New to this funding period, SCN has partnered with Canadian-based organizations specifically interested in supporting regenerative medicine research. As such, the Network will offer specialized, co-funded awards in strategically aligned research areas. SCN's research funding partners for the first funding competition include the Azrieli Foundation, Breakthrough T1D, and CQDM. Other partners will be announced in future years.

TRAINING FOR SUCCESS

Through *Accelerate*, the Stem Cell Network is committed to furthering the multidisciplinary skills and knowledge needed to build a thriving regenerative medicine workforce. SCN will continue offering educational experiences and training opportunities that will cultivate continued enthusiasm for research and its translation while promoting a passion and dedication to the stem cell and regenerative medicine field.

SCN is committed to training approximately 1,000 individuals from across Canada between 2025–2029. Additionally, SCN will grow its training supports for Early Career Researchers (ECRs) as

they navigate the challenges of lab management, build professional networks, and successfully secure funding for their research programs. SCN understands that giving Canada's ECR community a helping hand will pay off for decades to come.

MOBILIZING KNOWLEDGE

Over two decades, SCN has provided leadership and become a trusted resource for the latest knowledge and evidence in regenerative medicine. Moving forward, SCN will seek to build on this strength through marquee events such as the annual Till & McCulloch Meetings and by identifying opportunities to share the field's remarkable potential with diverse populations and groups from across the country. SCN's knowledge mobilization activities will encourage knowledge exchange among members of the community, expand knowledge translation and education for patients and the public, and enhance knowledge translation to inform future policy and regulatory decision-making.

COMMERCIALIZATION READINESS

As the regenerative medicine field advances, so too does its commercialization potential. This creates an exciting opportunity to ensure emerging Canadian therapies and technologies progress along the path towards market adoption and, ultimately, health impact.

SCN's community consultation process for *Accelerate* identified a need and opportunity to strengthen the Network's commercialization support. Consequently, in this next phase of growth, the Stem Cell Network is introducing a fourth strategic priority area: Commercialization

Readiness. SCN's commercialization programming efforts in this vital area will be consolidated, while valuable resources for Network investigators will be designed and deployed supporting the translation and uptake of the results of stem cell and regenerative medicine research. For its part, SCN will seek to unlock the Network's commercialization potential by helping its investigators gain access to the knowledge, partners, and resources needed to advance safe and effective innovations.

THE ROAD AHEAD

With this strategy, the Stem Cell Network is underscoring that it remains unwavering in its commitment to the Canadian researchers who are driving the stem cell and regenerative medicine therapies of tomorrow forward. **As it has throughout its history, SCN will continue fostering a strong, diverse, pan-Canadian research community — a community that is connected by a common vision: to transform lives through regenerative medicine.** This vision will be achieved through partnerships, collaboration, and a resolute belief in the excellence of Canadian research and ability to deliver regenerative medicine products to patients.

The vision and objectives outlined in *Accelerate 2025–2029* are only possible thanks to the continuing support of the Government of Canada. Its confidence in SCN and the Network's activities help directly support Canadian scientists and made-in-Canada innovations.

It is truly an exciting time for Canada's stem cell and regenerative medicine community. Whether you are a scientist, scholar, clinician, graduate student, industry leader, or patient, the Stem Cell Network invites you to join us in this next chapter of our ambitious journey.

VISION

Lives transformed by regenerative medicine

MANDATE

Accelerate regenerative medicine research for the benefit of all

VALUES

- 1. Excellence and innovation first**
- 2. Agility, continual learning, and improvement**
- 3. Professionalism, integrity, and ethical practice**
- 4. Equity, diversity, inclusion, and accessibility in all we do**
- 5. An environment that fosters collaboration and partnership**

ABOUT THE STEM CELL NETWORK

Powered by a pan-Canadian community of multidisciplinary experts and next-generation talent, the Stem Cell Network (SCN) focuses exclusively on stem cell and regenerative medicine (RM) research.

An on-the-ground, mission-driven, not-for-profit with more than two decades of impact, SCN funds research across Canada from the ground up. The Network's approach is to catalyze, accelerate, and translate cutting-edge research with the potential to change and save lives. Applying a continual review process to all research projects, SCN provides expertise and resources to investigators as and when needed. SCN's success is predicated

on building and fostering enduring partnerships and ensuring Canada's talent pool has the scientific skills and industry know-how required to succeed in delivering the health solutions of tomorrow.

In the Canadian life sciences ecosystem, the Stem Cell Network occupies a unique niche by combining its research, talent and partner focus to enable a pan-Canadian network.

SCN's Unique Value

Exclusive focus on regenerative medicine, with emphasis on funding development and translation.

Enduring research partner, supporting new and maturing ideas at critical points across the research continuum.

Fuels the talent pool by training researchers and trainees to be at the cutting edge of RM.

Strong network effect that connects a diverse, cohesive and pan-Canadian community.

Canada has been a world leader in regenerative medicine since the 1960s, with the initial experiments conducted by two Canadians — Drs. James Till and Ernest McCulloch — who demonstrated the existence of stem cells. Since then, Canadian researchers have continued making significant global contributions to areas including muscle stem cells, pancreatic progenitor cells, retinal stem cells, and cancer stem cells. These discoveries have led to the development of leading-edge therapies for chronic and rare diseases, illness and injury.

Accelerating much of our nation's most impactful research, SCN has been at the heart of the Canadian stem cell and regenerative medicine community. In this time, the Network has served as a trusted hub, convenor, and catalyst for collaborative and innovative research. That includes powering more than 279 research teams; training more than 7,000 promising, next-generation scientists; supporting 30 clinical trials; and catalyzing or enhancing more than 25 biotech companies. As a result, Canada has a world-class reputation for research excellence, developing high-quality talent, and producing innovations that are changing the face of healthcare.

CONTEXT FOR ACCELERATE

The strategy articulated in *Accelerate 2025–2029* is designed to not just pull forward the work achieved under the *Ignite 2022–2025* strategy, but rather further elevate Canadian science and power regenerative medicine into the next decade. *Accelerate* is founded on SCN's proposal to the Government of Canada through the Strategic Science Fund (SSF) and resulting budget allocation for the 2025–2029 period. Also instrumental in shaping this strategic plan were the ideas stemming from the members of the Network's research and training community, member institutions, partners, and the Network's Board of Directors and supporting committees.

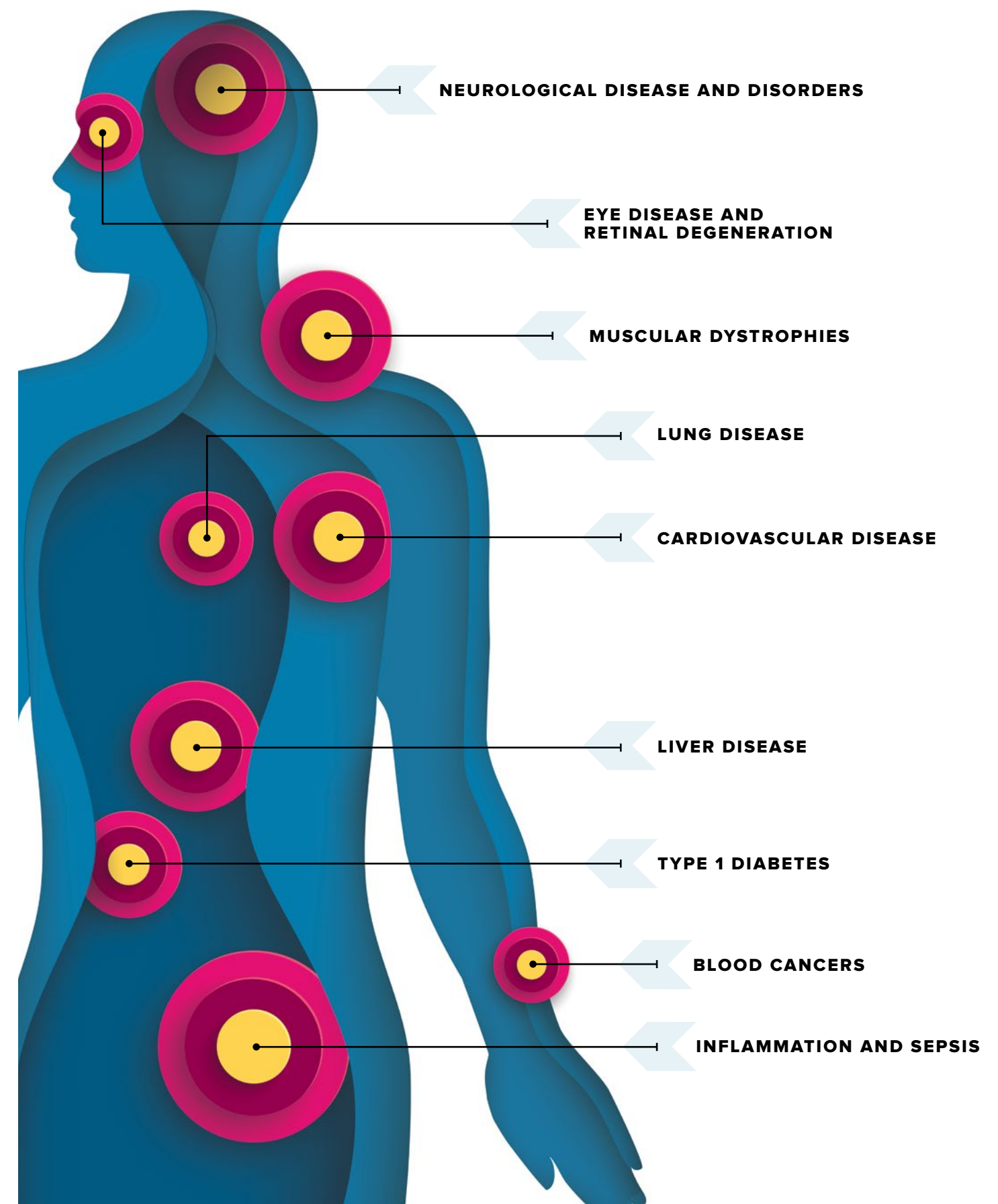
Canada could capture up to US\$14B in economic value if the required ambition and conditions are in place.

Today, there is an opportunity for Canadian-based researchers and companies to advance regenerative medicine solutions — solutions that can make a positive impact in the health and social well-being of Canadians. Economically, the reality is also that Canada has the potential to capture 10% of the US regenerative medicine market. Growth predictions vary, but an average of four forecasts sets the market at US\$142.1B by 2032.¹ Thus, Canada could capture up to US\$14B in economic value if the if the required ambition and conditions are in place.

With over \$148M invested into research projects and clinical trials across the country over the last 20 years, SCN has advanced approximately two dozen biotech companies through research funding — funding that has either enhanced an existing company or resulted in the spin-out of a new company. The RM companies of today and the future are well-positioned to bring innovative regenerative medicine products to market that will change the lives of those living with chronic diseases such as muscular dystrophy, liver diseases, autoimmune conditions and rare disorders. Today, regenerative medicine biotechs are also working on approaches to address tissue repair for the heart, lungs, and brain – the possibilities are endless. It is exciting to see Network researchers and biotech partners collaborating and using novel technologies that employ 3D-printed tissues in the fight against disease, leverage AI to accelerate drug discovery, and build virtual simulations that model disease progression and will ultimately advance personalized medicine. Canadian researchers and biotechs are making a real difference and their contributions are powering the global field of regenerative medicine.

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SCN RESEARCH IS MAKING A DIFFERENCE FOR:



¹ Average taken based on forecasts provided by Statista, NovaOne, Fortune Business and Yahoo Finance.

SCN investigators work at the cutting-edge of science and *Accelerate* will bolster their efforts while strategically focusing on the following:

- » **Ensuring** the commercial readiness of Canadian innovations derived from SCN research;
- » **Delivering** the most up-to-date skills for the those who will work in academia and industry;
- » **Offering** evidence-based approaches for the equitable adoption of regenerative medicine products;
- » **Providing** fact-based information about stem cell research; and
- » **Engaging** a broader, more diverse group about regenerative medicine and its promise.

At the start of the decade, the Stem Cell Network's objective was to 'ignite' Canada's true RM potential.

In the years ahead, as outlined in this plan, the Network's focus is squarely on 'accelerating' the delivery of life-saving innovations for Canadians.

In short, this strategic plan represents a new phase of activity for the Stem Cell Network and its enduring commitment to support excellence in Canadian regenerative medicine for the benefit of all.

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NEW VISION & MANDATE

Building on SCN's strengths and unique positioning in the Canadian ecosystem, *Accelerate 2025–2029* is guided by a renewed vision, mandate, and values.

For more than 20 years, SCN has provided national leadership, accelerating regenerative medicine research through peer-reviewed research, skills development, and communication of successes and discoveries in the field. SCN remains at the heart of Canada's regenerative medicine ecosystem, convening researchers, trainees, industry, and others who are connecting, sharing knowledge, collaborating, and accelerating the development and translation of stem cell and regenerative medicine research.

The Network's new vision and mandate emphasizes what matters most: **people**. Whether reaching people through research, training and mentorship, or directly, due to stem cell and regenerative medicine therapies making their way to patients, the Stem Cell Network remains steadfast in its commitment, across all its endeavours, to make the greatest possible impact for the benefit of all.

The Network's new vision and mandate emphasizes what matters most: people.

VISION

Lives transformed by regenerative medicine

MANDATE

Accelerate regenerative medicine research for the benefit of all

VALUES

1. **Excellence and innovation first**
2. **Agility, continual learning, and improvement**
3. **Professionalism, integrity, and ethical practice**
4. **Equity, diversity, inclusion, and accessibility in all we do**
5. **An environment that fosters collaboration and partnership**



STRATEGY AT A GLANCE

Accelerate 2025–2029 reflects the Stem Cell Network’s enduring commitment to maintaining an emphasis on **Research Acceleration, **Talent Development**, and **Knowledge Mobilization**.**

Over the years, in the context of these strategic priorities, SCN has supported commercialization by providing funding for critical studies, offering commercialization training and connecting Network investigators to industry and other investors.

SCN’s community consultation process for this *Accelerate* plan identified a need and opportunity to strengthen the Network’s commercialization

readiness supports. As a result, in this next phase of growth, SCN is introducing a fourth strategic priority area: **Commercialization Readiness**. It will be realized over the course of this *Accelerate* plan, consolidating the Network’s commercialization programming efforts and offering valuable resources that Network investigators need to bring their innovations from the lab, to patients, to marketplace.



RESEARCH ACCELERATION

Power the development and translation of regenerative medicine research, including studies that inform the ethical, legal, social, and health economic decisions associated with its innovations.

TALENT DEVELOPMENT

Foster a diverse community of today’s research leaders and tomorrow’s trailblazers who will pursue careers in regenerative medicine and offer cutting-edge innovations to advance Canadian healthcare and economic prosperity.

SCN’S STRATEGIC PRIORITIES

KNOWLEDGE MOBILIZATION

Drive knowledge exchange to build awareness, accelerate research and its translation, and inform adoption of regenerative medicine therapies and technologies.

COMMERCIALIZATION READINESS

Equip innovators with the resources, networks, and knowledge to successfully advance regenerative medicine innovations to products for people.



The following pages detail SCN's commitments for each of the four strategic priority areas, provide context for associated objectives, and highlight select examples of activities and initiatives. Across these priority areas, three key principles are embedded:

- » **Inclusion, diversity, equity, and accessibility (IDEA)** — A core value, IDEA is embedded in how the Stem Cell Network assesses funding applications, designs its programs, and engages the scientific community. Each of the Network's four priority areas includes IDEA-specific objectives.
- » **Partnerships** — Partnerships are, and always have been, vital to the Network and its ability to deliver programs with excellence, expertise, and reach. Each strategic priority outlines how SCN will work with its partners to enable and amplify the Network's impact.
- » **Impact** — To foster transparency and accountability, each section in *Accelerate* addresses a key priority area, in addition to identifying near-term guideposts and longer-term impacts to help gauge progress.



RESEARCH ACCELERATION

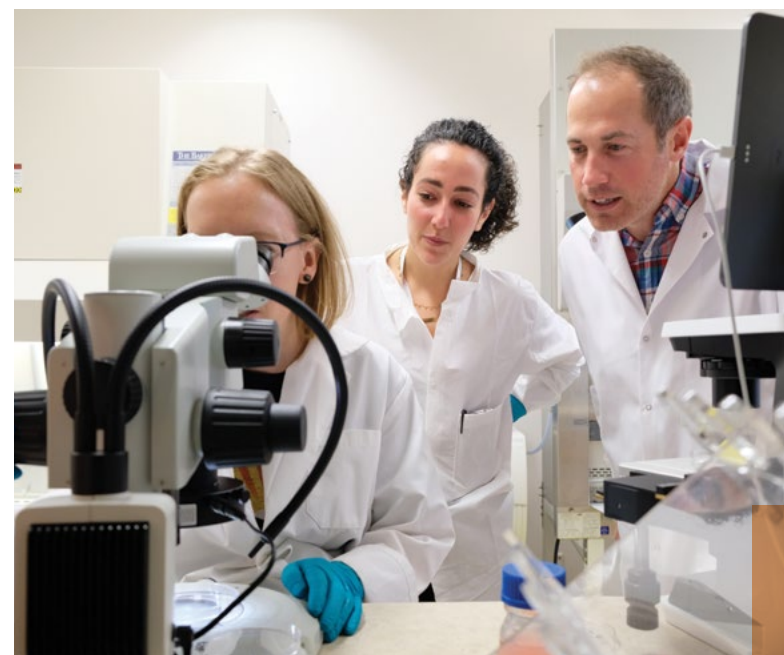
Power the development and translation of regenerative medicine research, including studies that inform the ethical, legal, social, and health economic decisions associated with its innovations.

As the only national funder dedicated exclusively to regenerative medicine, SCN-supported researchers have contributed to groundbreaking science for more than two decades. This includes innovations such as an implantable stem cell-derived liver tissue patch, a small molecule therapeutic for muscular dystrophy, an autologous skin substitute for burn patients, and a transfusion therapy using umbilical cord-derived tissue cells to treat pre-term infants at risk of bronchopulmonary dysplasia. These and many other advancements build on Canada's strong track record, dating back

to its earliest days and the work of Drs. Till and McCulloch in the 1960s.

Today, the Stem Cell Network is well-positioned to continue fuelling Canadian contributions in the regenerative medicine field by supporting research excellence from development to translation. With a laser focus, SCN will continue powering the advancement of novel Canadian-derived therapies and technologies that will transform the lives of patients. To ensure health system readiness and uptake of these therapies, SCN will also invest in high-quality ethical, legal, social and health economic research relevant for cell, gene, and tissue therapies. This work is fundamental to ensuring the equitable access and adoption of regenerative medicine innovations in the future.

With a laser focus, SCN will continue powering the advancement of novel Canadian-derived therapies and technologies that will transform the lives of patients.



Network research investments will be guided by the following key objectives:

FUEL RESEARCH — Invest along the research continuum to overcome translational hurdles and advance RM innovations towards commercialization

FOSTER CLINICAL TRIAL ACTIVITY — Support clinical trials to advance and test novel regenerative medicine therapies and technologies

BUILD EVIDENCE FOR POLICY MODERNIZATION — Enable ELSI and health economic research that can inform RM science and policy and help characterize economic and health impacts

ACTIVITIES

Over the 2025–2029 period, SCN will offer a robust set of research programs — specifically curated for the Canadian regenerative medicine community — while driving forward today’s research for tomorrow’s innovations. Network programs will build on the important learnings and advances achieved in the first half of the decade, building momentum to hasten the progress of innovative therapies and technologies so they are ready for the clinic and marketplace.

Two-thirds of the *Accelerate* budget will support research activities. Funding will be distributed across a suite of programs spanning from proof of concept to clinical translation, and commercialization. For the 2025-2029 period, SCN has factored inflationary costs for the conduct of research and salaries into its calculations. Two peer-reviewed funding competitions will be held to identify high-quality projects. The first, launched in September 2024, will see selected projects begin in spring 2025. This first competition will offer various awards, with durations of two and three years. Launching in September 2026, the second competition will offer two-year awards. Overall, the Network estimates that 50 to 70 research projects and clinical trials will be funded.

Eligible projects must focus on one or more of the following:

- » **Develop** or test therapeutic regenerative approaches, including cell and/or gene therapies, tissue engineering technologies, or biomaterials;
- » **Address** the role and function of stem cells in a tissue or disease;
- » **Use** stem cells as a necessary component for the generation of functional cell types;
- » **Investigate** a small molecule or biologic that acts on, or is dependent of, endogenous stem cells for its therapeutic effect; and,
- » **Investigate** the ethical, legal, social, and/or health economic implications of RM therapies.

PARTNERING FOR GREATER RESEARCH IMPACT

New to this funding period, SCN has partnered with Canadian-based organizations specifically interested in supporting regenerative medicine research. As such, the Network will offer specialized, co-funded awards in strategically aligned research areas. SCN’s research funding partners include: the **Azrieli Foundation**, **Breakthrough T1D**, and **CQDM**. These awards will supplement SCN funding rather than subtract from the overall number of awards to be funded by SCN during the 2025–2029 period.

OVERVIEW OF RESEARCH AWARDS

The following table provides an overview of SCN’s research funding awards for 2025–2029:

ECR JUMP START AWARDS		
Support early career researchers (ECRs) from all disciplines in their first five years to conduct developmental or high-risk, innovative RM research to establish ECR research programs and teams	Up to \$350K	Up to 36 months
IMPACT AWARDS		
Support projects that are conducting proof-of-principle experiments to understand stem and progenitor cell behaviour in disease-relevant settings and for data validation	Up to \$270K	Up to 24 months
IMPACT AWARDS: ELSI & HEALTH ECONOMICS STREAM		
Support studies focused on the ethical, legal, social, and health economic implications of regenerative medicine	Up to \$215K	Up to 24 months
ACCELERATOR AWARDS		
Support multidisciplinary projects expected to bring an RM therapy or technology to the clinic within five years	Up to \$650K	Up to 24 months
CLINICAL TRIAL AWARDS		
Support early-stage clinical trials that focus on novel gene, cellular, or stem cell-related therapeutic approaches to tissue repair and regeneration for specific diseases	Up to \$1.1M	Up to 36 months
FUELING BIOTECH PARTNERSHIP AWARDS		
Support academic-led partnerships with early-stage Canadian RM startups to resolve a translational question or bottleneck essential to advancing intellectual property and attracting investment	Up to \$430K	Up to 24 months

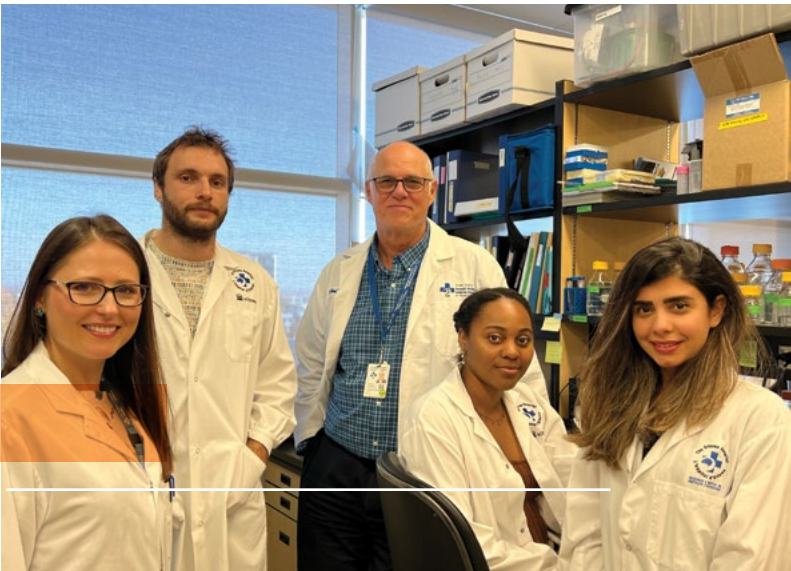
BUILDING RESEARCH SYNERGIES

The Stem Cell Network’s support of cutting-edge research does not start and end with funding. SCN engages in meaningful collaborations with partners to enhance Canada’s global reputation as a leader in regenerative medicine. The Network will continue building on work achieved through its *Ignite 2022–2025* strategy to foster networks bringing together multidisciplinary experts focused on understanding and addressing specific challenges in the regenerative medicine space.

It is expected that SCN will back approximately three targeted scientific events/meetings each year; these will provide a forum for experts to exchange knowledge, establish collaborative connections, and seed future research activities. Supported topics may include addressing the risks associated with pluripotent stem cells, leveraging AI for better research outcomes, the future of organoid research, computational modelling of human embryonic development, and global standards and approaches for developing and adopting cell and gene therapies.

DID YOU KNOW? In a 2024 poll of more than 3,000 Canadians, 74% support federal funding for stem cell research. Moreover, nearly 90% expressed concern that any funding reductions would put additional strain on Canada’s healthcare system and negatively impact Canada’s future economy.

With partner support, the Stem Cell Network’s national and multidisciplinary community will be charting the way forward on the research frontier, building and advancing durable health solutions.



By the close of the decade, powered by SCN’s research funding opportunities, Canada will see cutting-edge therapies and technologies move from the lab to people and be optimally positioned for commercialization. Furthermore, the research pipeline will be full, while researchers and trainees will be prepared to

translate their science into next-generation RM innovations. With partner support, the Stem Cell Network’s national and multidisciplinary community will be charting the way forward on the research frontier, building and advancing durable health solutions.

INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY (IDEA)

To embed inclusion, diversity, equity, and accessibility into all objectives and activities underpinning Research Acceleration, SCN will:

- Continue** requiring an IDEA plan for all research applications outlining how the research team will foster an inclusive environment.
- Continue** assessing how IDEA is incorporated into research methodologies as part of the framework to assess research funding applications.
- Equip** the members of its Research Management Committee (RMC) with IDEA training and a rubric so all members are optimally positioned to critically assess IDEA plans embedded in all research applications.

MEASURING SUCCESS

Near-Term Guideposts

- A growing body of distinguished and novel contributions to regenerative medicine research and a robust pipeline of regenerative medicine therapies and technologies moving toward the clinic.
- A greater number of patients accessing innovative therapies and technologies through clinical trials.
- A robust evidence base of the societal implications of RM therapies and technologies to inform public discussion and policy.

LONG-TERM IMPACT

A robust and growing portfolio of safe, accessible, and affordable regenerative medicine therapies and technologies that are improving patient outcomes and delivering economic benefits for Canada and Canadians.

RESEARCH METRICS FOR 2025–2029

- 70** funded RM projects
- 6** active clinical trials
- 22** research projects moving to the clinic or into commercialization
- 20%** growth of SCN-funded research groups
- 85** domestic and international partnerships

RESEARCH SPOTLIGHT

TINY CELLS FOR TINY LUNGS



Pre-term babies require supplemental oxygen and mechanical intervention to breathe. However, this can damage their fragile lungs, causing bronchopulmonary dysplasia (BPD) — a chronic lung disease. With smaller, weaker lungs, and thus a lack of oxygen during brain development, babies with BPD can develop learning disabilities or problems walking, hearing, and seeing. Each year, approximately 1,000 babies in Canada develop BPD. In children under five, complications of extreme pre-term birth are the leading cause of death.



In a world-first clinical trial, nine babies at high risk of developing BPD have been successfully enrolled and treated. Led by Dr. Bernard Thébaud and his team at The Ottawa Hospital and CHEO, this Phase I Clinical Trial is funded by the Stem Cell Network.

The first patient treated, Emmy Cogan, was born at just 23 weeks' gestation, weighing a mere 515 grams. Reflecting on the decision to enroll Emmy in the trial, her father, Mike Cogan, said: "Being a preemie, Emmy's going to have some health issues. And anything that could help, we wanted to give her that extra shot."

Emmy and the other eight babies in the trial were treated with an IV infusion of umbilical cord tissue cells grown from the donated umbilical cords of healthy newborns, manufactured with collaborators in Dresden, Germany. The goals of the trial are twofold: to determine whether the therapy is safe and feasible for premature babies, and to find the best dose for future trials.

"All the babies in the trial are doing well so far. We're seeing promising signs the cells are not only safe but may also be improving their outcomes. We won't know that for sure until we can do a larger trial. This safety trial is a critical step towards a potential breakthrough therapy that could help premature babies in Canada and around the world."

Dr. Bernard Thébaud, Associate Scientific Director, Stem Cell Network; Senior Scientist, Regenerative Medicine, Ottawa Hospital Research Institute & CHEO Research Institute Neonatologist, Division of Neonatology, The Ottawa Hospital & CHEO; Professor of Pediatrics, University of Ottawa; University of Ottawa Partnership Research Chair in Regenerative Medicine

Photos courtesy of The Ottawa Hospital





TALENT DEVELOPMENT

Foster a diverse community of today's research leaders and tomorrow's trailblazers who will pursue careers in regenerative medicine and offer cutting-edge innovations to advance Canadian healthcare and economic prosperity.

Amplifying Canada's leadership in regenerative medicine and building a pipeline of innovations depends on attracting, retaining, and developing skilled talent for productive careers in industry and academia. To compete on the global stage, Canada requires a research community trained at the cutting edge of regenerative medicine. It also requires a talented workforce capable of working at the intersection of science and innovation: from

science and clinical application, to policy and regulatory, to investment, reimbursement, and health system adoption. Through *Accelerate*, the Stem Cell Network is committed to furthering the multidisciplinary skills and knowledge needed to build a thriving RM workforce. As such, SCN will continue offering educational experiences and opportunities aimed at instilling a commitment and passion for working in the stem cell and

Through talent development, SCN will advance the following objectives:

INVEST IN TALENT — Support opportunities for trainees to acquire hands-on research skills and experiences and contribute to regenerative medicine research, translation, and commercialization

DEVELOP CUTTING-EDGE SKILLS — Provide opportunities for training and skills development that empower researchers and trainees to lead cutting-edge regenerative medicine research for both academia and industry

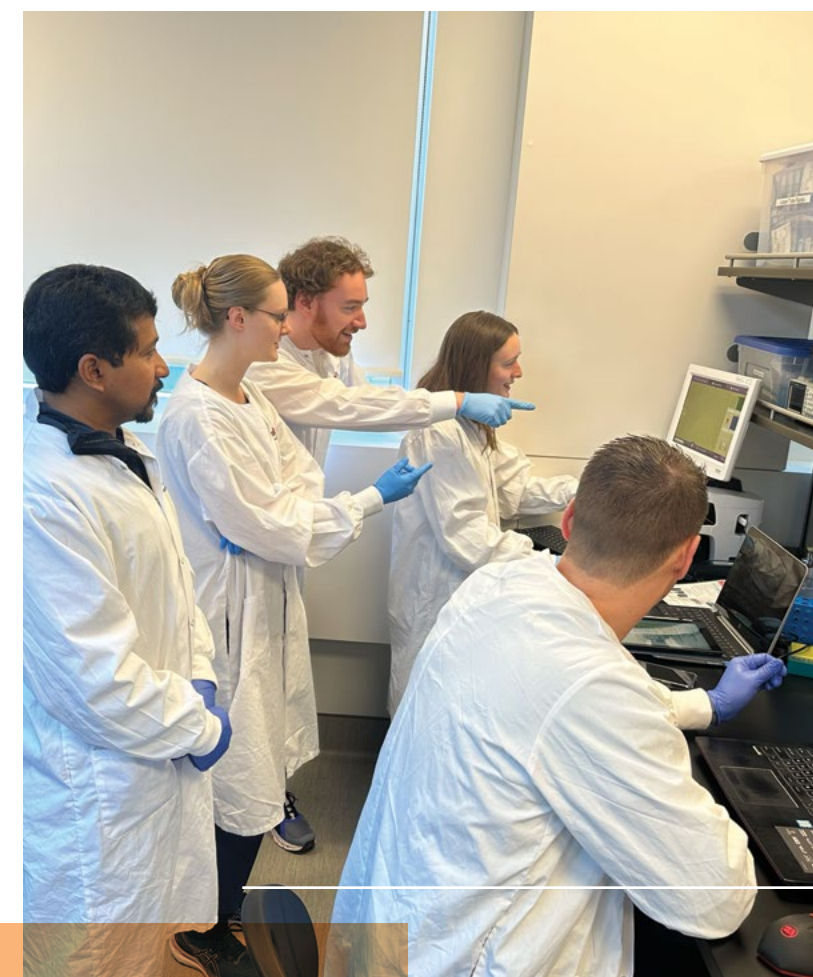
EMPOWER SUCCESSFUL CAREERS — Foster a connected regenerative medicine ecosystem committed to cross-sector collaboration and mentorship to attract, retain, and support highly skilled talent that will power Canada's regenerative medicine sector for decades to come

regenerative medicine field. Beyond education, having mentors and access to peer networks is essential for establishing a long-term career in the RM field. SCN understands the importance of connection and is committed to providing opportunities, not only to catalyze mentoring but to enable the creation of meaningful, inclusive peer networks.

“SCN is dedicated to helping trainees progress in their careers, build valuable connections, and actively contribute to the stem cell and regenerative medicine sector.”

Tyler Wenzel, Post-Doctoral Fellow, University of Saskatchewan

For more than 20 years, SCN's investigators have helped launch the careers of thousands who have gone on to lead their own labs and companies or pursue careers in Canada's thriving life sciences ecosystem. Today, that talent continues giving back to SCN by volunteering their time, knowledge, and resources to further build excellence across the Network. In large part, this is what makes the Stem Cell Network so unique — it is a network built by researchers for researchers.



ACTIVITIES

SCN’s Talent Development Program will offer skills development through the following training streams:

- » **Core Skills for Academia** will develop and refine the technical skills and rigour required to be effective and productive in a lab
- » **Foundational Skills for Industry** will offer career development training to support scientists wishing to pursue careers within industry or the public sphere
- » **The Art of Clinical Translation** will address a broad range of proficiencies required to move cell and gene therapies into the clinic, from pre-clinical requirements through the ethical and regulatory requirements that must be addressed
- » **Commercialization Readiness** will focus on cultivating understanding of the business of regenerative medicine, so innovations generated in the lab will be well-positioned for adoption

Through these four streams, SCN will provide workshops and courses that will offer access to education in emerging areas such as microfabrication methods, gene editing, 3D bioprinting, and biomaterials applications in RM. Additionally, training on topics such as intellectual property, Good Manufacturing Practices (GMPs) for biomanufacturing, project management, science communication and leadership will be offered. Each year, SCN will work with two of its committees, its Training and Education Committee (TEC) and its Trainee Communications Committee (TCC), to determine the Network’s annual offerings.

For the 2025–2029 period, SCN is committed to offering at least 40 workshops/courses and training of approximately 1,000 individuals from across Canada wishing to pursue careers in regenerative medicine. Beyond annual courses and workshops, the Network will provide opportunities for lab exchanges, industry internships, and specialized fellowships. These offerings will not only enrich the breadth of training of participants receive, but help shape career trajectories. Collectively, along with hands-on opportunities, they will provide a well-rounded experience for the next generation of talent — those who will accelerate the growth of Canada’s regenerative medicine sector.



Joining Forces & Delivering Value

From its earliest days, partnering has been at the heart of SCN’s training program. SCN works with both investigators and organizations to offer in-demand programs and leverage the expertise of its partners for the benefit of the community. Under the *Ignite* strategy, SCN collaborated with 32 partners offering nearly 100 different initiatives. Through *Accelerate*, SCN will continue building on these partnerships and engaging in new ones. For example, working with biomanufacturing partners, SCN will offer new learnings to assist Network investigators in understanding how best to prepare for GMP manufacturing. “Planning with the End in Mind” will be a unique program for those wishing to take a cell or gene therapy into the clinic. Ultimately, this program is anticipated to reduce the cost and time associated with bringing RM products to people.

“The Stem Cell Network is unique, in that it fosters connection and community among trainees from across the country. The focus and care SCN applies towards developing its training program is evident and empowers trainees to explore and pursue their desired career paths, with many staying in the Canadian regenerative medicine ecosystem.”

Alexandra Kozlov, PhD, former SCN trainee

SCN envisions an ecosystem where Canada will have a highly cohesive, skilled, and talented workforce — a workforce capable of successfully stepping into the careers of tomorrow, competing internationally, and placing Canada at the forefront of regenerative medicine.

SUPPORTING EARLY CAREER RESEARCHERS

Under *Ignite*, SCN launched a specialized training program for Early Career Researchers (ECRs). A key goal was to connect ECRs from various disciplines and regions who could join forces, learning from and collaborating with one another in fighting disease and illness. As part of this undertaking, SCN has hosted ECR-focused symposia so new researchers could share their work, build scientific collaborations, and receive valuable training to strengthen their research programs and yield high-quality research outputs. Supported by a volunteer committee of ECRs who give generously of their time and energy, the initiative was well-received with more than 90 percent of attendees indicating it met their expectations and needs. Through *Accelerate*, SCN will grow its ECR offerings to support these scientific leaders as they navigate the challenges of lab management, building professional networks, and successfully securing funding for their research programs.

By the close of the decade, SCN envisions an ecosystem where Canada will have a highly cohesive, skilled, and talented workforce — a workforce capable of successfully stepping

into the careers of tomorrow, competing internationally, and placing Canada at the forefront of regenerative medicine.

INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY

To embed inclusion, diversity, equity, and accessibility into the objectives and activities underpinning Talent Development, SCN will:

Host IDEA training sessions for researchers and trainees to improve their ability to integrate IDEA considerations into their research design, analysis (e.g., sex and gender-based analysis) and methods.

Host IDEA training sessions specifically for Principal Investigators (PIs) on creating an inclusive culture and cultivating a work environment where trainees and staff can thrive.

Improve the accessibility of training opportunities to individuals from geographically diverse communities and for those with disabilities.

Prioritize the identification and engagement of trainers reflecting the diversity of SCN's trainee community.

MEASURING SUCCESS

Near-Term Guideposts

Growth in the number and diversity of researchers and trainees accessing SCN's training opportunities, including skills development, mentorship, networking events, and salary awards.

A diverse portfolio of training opportunities, including technical skill development, career preparation, mentorship, and funded hands-on learning placements.

Growth in the proportion of researchers from underrepresented groups pursuing research careers in regenerative medicine.

LONG-TERM IMPACT

A growing, dynamic, and sustainable regenerative medicine sector in Canada powered by an inclusive, collaborative, and connected talent pool with the cutting-edge skills required to unlock the health and economic benefits of regenerative medicine.

TRAINING METRICS

40 skills training opportunities

1,000 diverse individuals trained for careers in RM

80% of SCN trainees pursuing careers in Canada following SCN training

TRAINING SPOTLIGHT

CHOOSING CANADA FOR ITS DIVERSITY AND LEADERSHIP IN REGENERATIVE MEDICINE



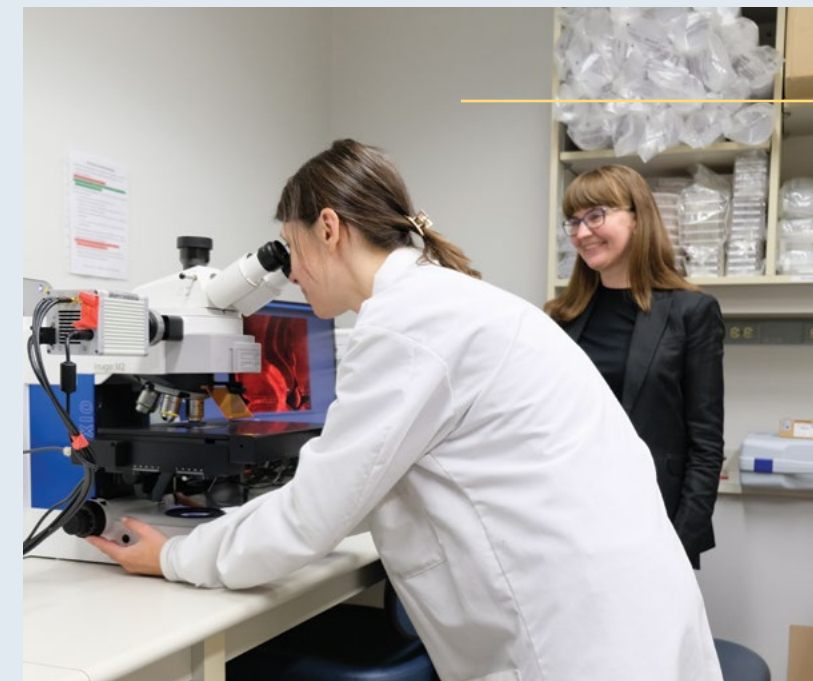
When Dr. Anastassia Voronova set foot in Canada in 2007, she anticipated a short stay — just long enough to fulfill a requirement of her master's program to conduct research outside Estonia, her home country. Landing in Ottawa for a two-month fellowship, Dr. Voronova quickly decided she wanted to make Canada her permanent home.

neurodevelopmental disorder. Her lab has discovered that some molecular pathways used by adult stem cells are the same as those used during development.

“My belief is that by understanding how the brain develops, we could possibly ‘highjack’ those same processes, once important during development, to activate the brain’s own stem cells. This could help in repairing and regenerating the brain.”

After finishing her PhD at the University of Ottawa, Dr. Voronova moved to Toronto, where she completed postdoctoral training under the leadership of esteemed stem cell researcher Dr. Freda Miller at The Hospital for Sick Children. The Miller lab studied the mechanisms of brain repair, particularly how that repair can be stimulated with drugs after damage caused by disease or as a side effect of cancer radiation and chemotherapy.

Following on her postdoctoral training with Dr. Miller, Dr. Voronova established her own lab at the University of Alberta, renowned for its strong neuroscience, immunology and imaging research centres. Here, her lab continues to study neural stem cells and the brain, with a focus on multiple sclerosis (MS) and KBG syndrome, a rare genetic

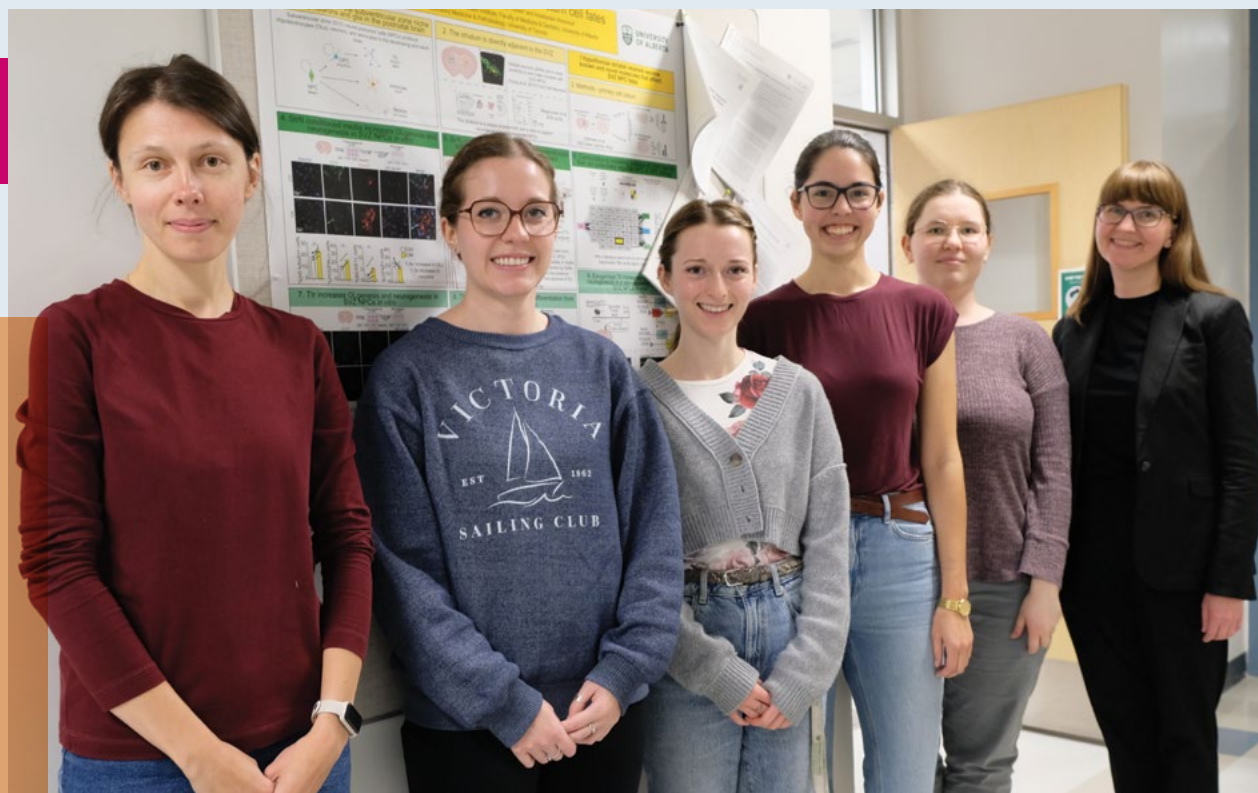


Dr. Voronova's lab has also identified novel clinical features of KBG, as well as a distinct connection between the heart and the brain that can cause heart defects in children with neurodevelopmental disorders.

DR. VORONOVA credits her success not only to the incredible mentorship of Dr. Miller but also to the training she received through Stem Cell Network. Today, Dr. Voronova's trainees actively participate in SCN training programs and workshops, refining their lab and management skills. The lab credits the Network's data management training opportunities for positively impacting the efficiency of how the lab runs.

Dr. Voronova's lab is focused on bringing novel regenerative medicines to people with primary progressive MS, who have only limited, effective treatment options, and to continue working with the clinical community to better understand, diagnose, and treat KBG syndrome.

“Our next step is to build stronger connections with the patients who will benefit from our research, and to advance our work towards real-world applications through commercializing our discoveries,” said Dr. Voronova. “This is incredibly important to me and my team. We want to continue doing fundamental science while translating our findings into tangible benefits for patients.”



KNOWLEDGE MOBILIZATION

Drive knowledge exchange to build awareness, accelerate research and its translation, and inform adoption of regenerative medicine therapies and technologies.

Accelerating the development and uptake of regenerative medicine innovations will benefit from an informed, engaged community of stakeholders. Patients and the public want to understand this relatively new field and its potential benefits. They also want to participate in clinical trials and access potentially life-saving innovations. Researchers are seeking to stay abreast of scientific advances and build productive collaborations with partners, while regulators require insights regarding emerging technologies that require specialized reviews. Understanding these diverse audiences and needs, the Stem Cell Network's Knowledge Mobilization program will target these key audiences and offer

resources and convening opportunities that will allow for greater understanding and uptake of regenerative medicine research.

Over the past two decades, the Stem Cell Network has provided important leadership and become a trusted resource for the latest knowledge and evidence in regenerative medicine. Moving forward, SCN will seek to build on this strength through marquee events such as the annual Till & McCulloch Meetings (described in greater detail on the next page), and by identifying opportunities to expose Canadians from all walks of life to the state and potential of the field.

Through Knowledge Mobilization, SCN will advance the following objectives:

POWER KNOWLEDGE EXCHANGE — Convene and connect SCN researchers and trainees to share findings, build collaborations, and amplify research impact nationally and globally

INFORM THE REGENERATIVE MEDICINE ADOPTION PATHWAYS — Provide the evidence and expertise to support and encourage policy and regulatory advancements to incentivize the adoption of regenerative medicine therapies and technologies

FOSTER UNDERSTANDING AND ENGAGEMENT — Serve as a trusted resource for patients and the public by providing fact-based information, communicating the state of regenerative medicine research, and educating on how to engage in clinical trials

ACTIVITIES

The Stem Cell Network's Knowledge Mobilization program will focus on creating opportunities for researchers and trainees to exchange knowledge, collaborate, and innovate. It will also enable policy and regulatory conversations, provide public education and patient engagement, and contribute to a strong science culture in Canada.

Perhaps the most impactful opportunity for knowledge exchange in the Network are SCN's Till & McCulloch Meetings (TMM). Hosted annually across Canada since 2011, TMM is Canada's premier stem cell and regenerative medicine research event. TMM brings together the Network's community of stem cell and RM scientists, clinicians, bioengineers, and ethicists, as well as representatives from industry, government, the health and non-profit sectors. Every fall, over the course of several days, the latest research findings are shared, collaborations are formed, trainees are nurtured, and ideas that will advance the field are born.

At the heart of TMM is a rigorous scientific plenary program bringing nationally and internationally recognized experts to the Canadian stage to share the latest advances and inspire delegates to ask big questions and push boundaries. TMM has become such a highlight in the scientific calendar that SCN is honoured to have Nobel Laureate Dr. Shinya Yamanaka join us at TMM 2026 in Vancouver to give the keynote address. Dr. Yamanaka changed the face of stem cell research when he discovered that adult somatic cells can be reprogrammed into an embryonic-like pluripotent state by delivering transcription factors. SCN looks forward to bringing equally notable speakers to this annual gathering in the years ahead.

SCN will always be committed to meeting the needs of the community and keeping pace with the state of research. As such, in the coming years TMM will include an industry symposium that brings scientists, entrepreneurs, and investors together to build interest in commercializing Canadian RM innovations. The goal is straightforward: to build knowledge and deepen connections between academia and business to propel leading-edge technologies into commercialization. Through these symposia SCN hopes to inspire potential scientific entrepreneurs to take the leap and explore what is possible beyond the lab.

Every fall at TMM, over the course of several days, the latest research findings are shared, collaborations are formed, trainees are nurtured, and ideas that will advance the field are born.



ON THE GLOBAL STAGE —

International collaboration is the key to ensuring Canada remains visible and competitive on the global stage. Beyond highlighting Canadian expertise at international conferences, SCN will continue nurturing valuable international research collaborations such as the **Global Virtual Human Development Consortium**. Created in 2022 by SCN researchers, it is comprised of multidisciplinary researchers from across the globe, including Japan, Spain, the U.S., the U.K., Germany, and Belgium. The Consortium connects a global community of scholars and policymakers around the shared goal of creating a digital-twin simulator of human embryonic development. Its mission is to produce a state-of-the-art simulator with the ability to efficiently and effectively enable cell engineering and personalized RM therapies.

During SCN's strategic planning consultations, members of the community indicated they wanted an opportunity to connect more than just once a year at TMM. As such, new for the 2025–2029 period will be a quarterly webinar series — From the Petri Dish to Patients: SCN's Knowledge Exchange Webinar Series. It will serve as a virtual space for researchers from across Canada, a forum where they can connect and exchange information and present their latest research. Topics may include (but are not limited to) cell therapies that restore balance to an overactive immune system, synthetic biology, cell cloaking, leveraging AI for better research, trends in iPSC-derived therapies, and the nuances of cell manufacturing. For those preferring the written



word, SCN will continue facilitating knowledge exchange with its Insights from the Network Blog; the blog is a platform where researchers can share their latest advancements, achievements, and breakthroughs across the Network.

KNOWLEDGE MOBILIZATION FOR POLICY DEVELOPMENT

SCN recognizes it has an obligation to support the translation of knowledge for evidence-based public policy and regulations. In the coming decade, one of the biggest issues to be tackled globally is how best to effectively plan for and ensure the equitable access, adoption, and affordability of cell and gene therapies. This must be supported by a modern, flexible regulatory system capable of responding to the complexities of cell and gene therapy products so they can reach Canadian patients. In the United States, work is already underway. The Center for Biologics Evaluation and Research (CBER) believes there will be exponential growth in cell and gene therapies submissions in the coming years. As such, it has opened an Office of Therapeutic Products to address the substantial growth in innovative, novel products and the ever-changing public health landscape.² It is incumbent upon Canada to prepare for the future, and for each actor in Canada's stem cell and RM fields to play a positive and constructive role. For the Stem Cell Network this means engaging the research community and working with partners to provide the relevant research, expert insights, and data to inform Canada's approach for equitably adopting cell and gene therapies.

2 US FDA: www.fda.gov/vaccines-blood-biologics/cellular-gene-therapy-products/establishment-office-therapeutic-products

Readying the System for Diabetes Therapies of the Future

Type 1 diabetes is a chronic autoimmune disease affecting more than 300,000 Canadians, costing the healthcare system approximately \$29 billion annually. Although a lifesaving therapy, insulin injection is not a cure for diabetes. Innovative stem cell therapies may offer the best answer for future treatment and a functional cure. Today, some of the most advanced research is taking place in Canadian labs.

Over the 2025–2029 period, SCN will work with the Institute for Health Economics, charity, and industry partners, and investigators from across the Network to map a path forward to adopt Canadian-derived cell therapies, using type 1 diabetes as the demonstration therapy.

Over the 2025–2029 period, the Network will collaborate with its partners to:

- » **Provide** Canadian-specific data on cell and gene therapies and clinical trials;
- » **Lead** a series of workshops, roundtables, and panel discussions on advancing the adoption of cell and gene therapies;
- » **Generate** a collaborative report that addresses the opportunities, challenges, and milestones to be addressed for the successful deployment of cell and gene therapies into the healthcare system — especially those likely to challenge regulatory paradigms; and,
- » **Develop** publicly accessible resources on the state of cell and gene therapies, and their adoption in Canada.

KNOWLEDGE MOBILIZATION FOR PATIENTS & THE PUBLIC

As the popularity of stem cell and regenerative medicine treatments grow, engaging with the public and patient communities remains a Network priority. From youth education initiatives, to increasing public awareness of stem cell and RM through digital media, SCN remains steadfast in its efforts to raise awareness among youth, the public, and patient communities.

Over the *Accelerate 2025–2029* period, SCN will continue delivering StemCellTalks, its popular youth education programming. These highly interactive, full-day symposia offer high-school youth a unique opportunity to connect with experts, discuss future career paths, and explore stem cell science. Delivered in English and French, the StemCellTalks program is expected to grow from 10 locations in Canada to 14 by the close of the decade — including expanding to remote and Indigenous communities.

With partner support, the Stem Cell Network envisions its Knowledge Mobilization activities will enable knowledge growth, public awareness, and informed decision making regarding the adoption of regenerative medicine products for Canadians.

SCN will also continue delivering its public-facing video series, Stem Cells from the Sofa. It offers top Canadian scientists a platform for sharing their latest research and its potential in ten minutes or less. Over the 2025–2029 period, SCN aims to



grow the bilingual series and its viewership, adding patient speakers to the episode lineup to discuss their experiences with stem cell treatments.

By the end of the decade, with partner support, the Stem Cell Network envisions its Knowledge Mobilization activities will enable knowledge growth, public awareness, and informed decision making regarding the adoption of regenerative medicine products for Canadians.

INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY

To embed inclusion, diversity, equity, and accessibility into the objectives and activities underpinning Knowledge Mobilization, the Network will:

- Ensure** knowledge exchange engagements and activities are promoted and accessible to a diverse audience, including those from geographically diverse communities and those with disabilities.
- Draw** upon the diverse perspectives of the SCN research and patient communities in developing knowledge mobilization programming and public-facing products.
- Share** evidence and expertise on health equity considerations as part of SCN’s contributions to the policy and regulatory advancements shaping the adoption of RM therapies and innovations.

MEASURING SUCCESS

Near-Term Guideposts

- Increasingly diverse (e.g., lived experience, career stage, geography, sector) and engaged community of researchers participating in research exchange initiatives (e.g., TMM)
- Opportunities to inform policy modernization, while regulatory frameworks are identified, pursued, and supported.
- Patients and key communities can access evidence-based information about stem cell and regenerative medicine research and how to participate in translation (e.g., clinical trials).

LONG-TERM IMPACT

A research community more informed of results; a patient community more aware of the state of research and engaged in translation; and an ecosystem more receptive to adopting regenerative medicine innovation.

2025–2029 KNOWLEDGE MOBILIZATION METRICS

- 100** accessible KM events and activities
- 40** accessible KM resources published
- 3,000** youth engaged in educational programming
- 80** public-facing products, resources, and materials
- 170** SCN-supported publications, generating ~1,500 citations

THE TILL & MCCULLOCH MEETINGS

CONNECT, TRAIN, LEAD.





COMMERCIALIZATION READINESS

Equip innovators with the resources, networks, and knowledge to successfully advance regenerative medicine innovations to products for people.

As the regenerative medicine field advances, so too does its commercialization potential. This creates an exciting opportunity to ensure emerging Canadian therapies and technologies progress along the path towards market adoption and health impact. As noted in the opening pages of *Accelerate*, Canada could potentially capture upwards of USD\$14 billion in economic benefits by 2032. Realizing success will require a national vision, commitment, and enabling conditions.

For its part, SCN will seek to unlock the Network's commercialization potential by helping its investigators gain access to the knowledge, partners, and financial resources needed to advance safe, effective regenerative medicine innovations with commercial potential.

Through Commercialization Readiness, SCN will advance the following objectives:

OFFER INCUBATION SUPPORT — Provide funding for promising innovations with a high potential for product development and market adoption

BROADEN THE NETWORK — Engage with industry, biotech companies, and investors to foster connections, capitalize on commercial prospects, and provide opportunities to participate in SCN programming

DEEPEN COMMERCIALIZATION ACUMEN — Enhance the knowledge base and expertise of Canada's regenerative medicine community to successfully navigate the complexities of bioentrepreneurship



Photo courtesy of Aspect Biosystems

For its part, SCN will seek to unlock the Network's commercialization potential by helping its investigators gain access to the knowledge, partners, and financial resources needed to advance safe, effective regenerative medicine innovations with commercial potential. Historically, SCN has integrated commercialization supports into the objectives of its core Research, Training, and Knowledge Mobilization areas. Through *Accelerate*, SCN will now sharpen its focus on commercialization readiness by formally establishing it as a fourth strategic area of focus.

The Network has always been an enduring partner for researchers, helping them move innovations from the lab to people — which has included preparing for commercialization. Today, SCN's translational support model has catalyzed several successful companies that have advanced to the point of attracting significant private investment. A 2024 analysis shows that for every dollar SCN

commits to research associated with a Canadian biotech, that company raises an additional \$30 in private equity. Thus, SCN is well-positioned not only to support commercialization readiness in the regenerative medicine community but to position the next wave of innovations so they are primed to deliver measurable health and economic impacts for Canada.

ACTIVITIES

SCN's Commercialization Readiness Program will be achieved by offering research support, education, and access to industry experts and networks. Being a new area of focus, SCN will employ a senior-level Vice-President with a background in life sciences and commercialization to oversee this strategic area and ensure it is executed upon efficiently and effectively.

The Network has always been an enduring partner for researchers, helping them move innovations from the lab to people — which has included preparing for commercialization.

NEW AND FOCUSED RESOURCES

The Network will offer a new award for small Canadian biotechs with a stem cell and/or regenerative medicine product. The award’s primary objective is to assist in building strong data packages and addressing scientific hurdles that may impede future private investment. This opportunity is a natural extension of the research support already offered by SCN, covering proof of concept, pre-translation, and translation via early-stage clinical trials. During SCN’s community consultations to inform *Accelerate*, it was noted that a resource gap exists for academic researchers and that a pre-commercialization award, supplemented by training and specialized expert support, would better position Canadian RM innovations for successful commercialization. As such, the new Incubation award will be administered outside SCN’s traditional research competition as it will require not only scientific peer review assessment but also an assessment by an expert Incubation award oversight committee well-versed in life science commercialization. It is anticipated a total of three to five incubation awards will be offered over the 2025–2029 period. Ultimately, SCN expects this new and unique offering will help keep Canadian innovations from stagnating or being commercialized in other countries.

The successful translation of research is a complicated process, particularly in an emerging field such as regenerative medicine. As such, SCN will work with partners on developing resource materials and educational offerings to build the RM knowledge base of bioentrepreneurs. Resources, such as the SCN-CCRM Technology Commercialization Readiness Guide, will be complemented by seminars unpacking the complexities of commercialization with experts in tech transfer, investment, and regulatory pathways. The Network will also develop a suite of online resources to assist researchers in understanding planning for biomanufacturing and managing and protecting intellectual property. Beyond these initiatives, scientific founders will benefit from SCN-curated opportunities to connect with investors and experts through investment conferences as well as specialized coaching targeted for the field of RM.

Building networks to aid in incubating RM start-ups is critical to commercialization success. Accordingly, SCN will work with partners to ensure the members of Canada’s stem cell and regenerative medicine community have access to experts in regulatory affairs, business development, and investment so they can successfully translate their scientific results. The Network will grow its valued partnerships with regional life science organizations, as well as industry-facing not-for-profits whose programs and networks provide important value for SCN through investor conferences, educational programs, and research acceleration services.

By the end of the *Accelerate* period, it is anticipated that up to a dozen companies will be catalyzed or enhanced, and a growing community of bioentrepreneurs and regenerative medicine innovations will be on the track to commercial success and, ultimately, health adoption.

INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY

- To embed inclusion, diversity, equity, and accessibility into the objectives and activities underpinning Commercialization Readiness, the Network will:
- Provide** commercialization training opportunities and resources that develop IDEA knowledge and skills, enabling development of innovations that maximize equitable access and health outcomes.
 - Ensure** that opportunities to deepen knowledge for commercialization are inclusive and accessible to all.
 - Require** that all applicants for investment awards demonstrate, in their commercialization plans, their commitment to maximizing equitable access and equitable health outcomes.

MEASURING SUCCESS

Near-Term Guideposts

- An increasingly engaged private sector collaborating with researchers, providing mentorship, and investing in Network-backed regenerative medicine companies and innovations.
- Growth in the number of investigators accessing commercialization knowledge- building opportunities, including training and mentorship.

LONG-TERM IMPACT

A growing community of innovators and regenerative medicine innovations advancing towards commercial success and health adoption.

COMMERCIALIZATION METRICS FOR 2025–2029

- 10** companies catalyzed or enhanced due to supported research
- 6** companies able to attract additional investment
- 15** companies benefitting from participation in SCN networking and commercialization training programs
- 20** commercialization activities and resources provided
- 200** patent applications filed, or licences granted

COMPANY SPOTLIGHT

TRANSFORMING THE TREATMENT OF LIVER DISEASE: MORPHOCELL TECHNOLOGIES



Based in Montréal, [Morphocell Technologies](#) is a preclinical regenerative medicine company focused on liver disease, borne out of game-changing research originally funded by the Stem Cell Network. Liver disease affects one in four Canadians, costing the healthcare system an average of \$39 million annually.



In 2016, Drs. Massimiliano Paganelli and Claudia Raggi of the Centre hospitalier universitaire (CHU) Sainte-Justine set out to find an alternative solution for patients suffering from Acute Liver Failure (ALF). Patients with ALF often require a liver transplant within days of diagnosis to survive, and it is not always possible to find a donor. Those who do, typically require a lifetime of immune-suppressant drugs. Using stem cells, Drs. Raggi & Paganelli created “mini livers” or liver organoids and combined them with a special biomaterial to generate an encapsulated liver tissue (ELT). This innovative product provides liver function to ALF patients, keeping them healthy while their own liver heals or they wait for a transplant.



In 2018, this game-changing, stem cell-based technology was used to spin out Morphocell Technologies. As of 2024, the Network has invested \$1 million in this high-quality research as it has the potential to provide not only new treatment options for those with ALF but those with chronic liver failure and other liver diseases. It is not just SCN that sees the potential in this research. In 2024, Morphocell secured USD\$40 million in Series A financing from private investors — a clear vote of confidence in the innovative work of Drs. Paganelli and Raggi.

This is a prime example of Network-supported research, catalyzed thanks to SCN research

funding and resources. Other biotechs, including ExCellThera, Satellos, Mesentech, Mesintel Therapeutics, Inspire Biotherapeutics, Axolotol and Aspect Biosystems, offer additional examples of companies that have been spun out which have catalyzed and leveraged SCN programming to build and translate their regenerative medicine products for the benefit of all.

THE ROAD AHEAD

For more than 20 years, the Stem Cell Network has been squarely committed to supporting stem cell and regenerative medicine research in Canada and helping investigators advance their discoveries into the clinic — where patients can directly benefit.

Over the years, the Network's support has remained unwavering. With this *Accelerate* strategy, SCN is underscoring that it remains steadfast in its commitment to the Canadian researchers innovating the stem cell and regenerative medicine therapies of tomorrow.

SCN will continue fostering a strong, diverse pan-Canadian research community connected by a common vision: to transform lives through regenerative medicine.

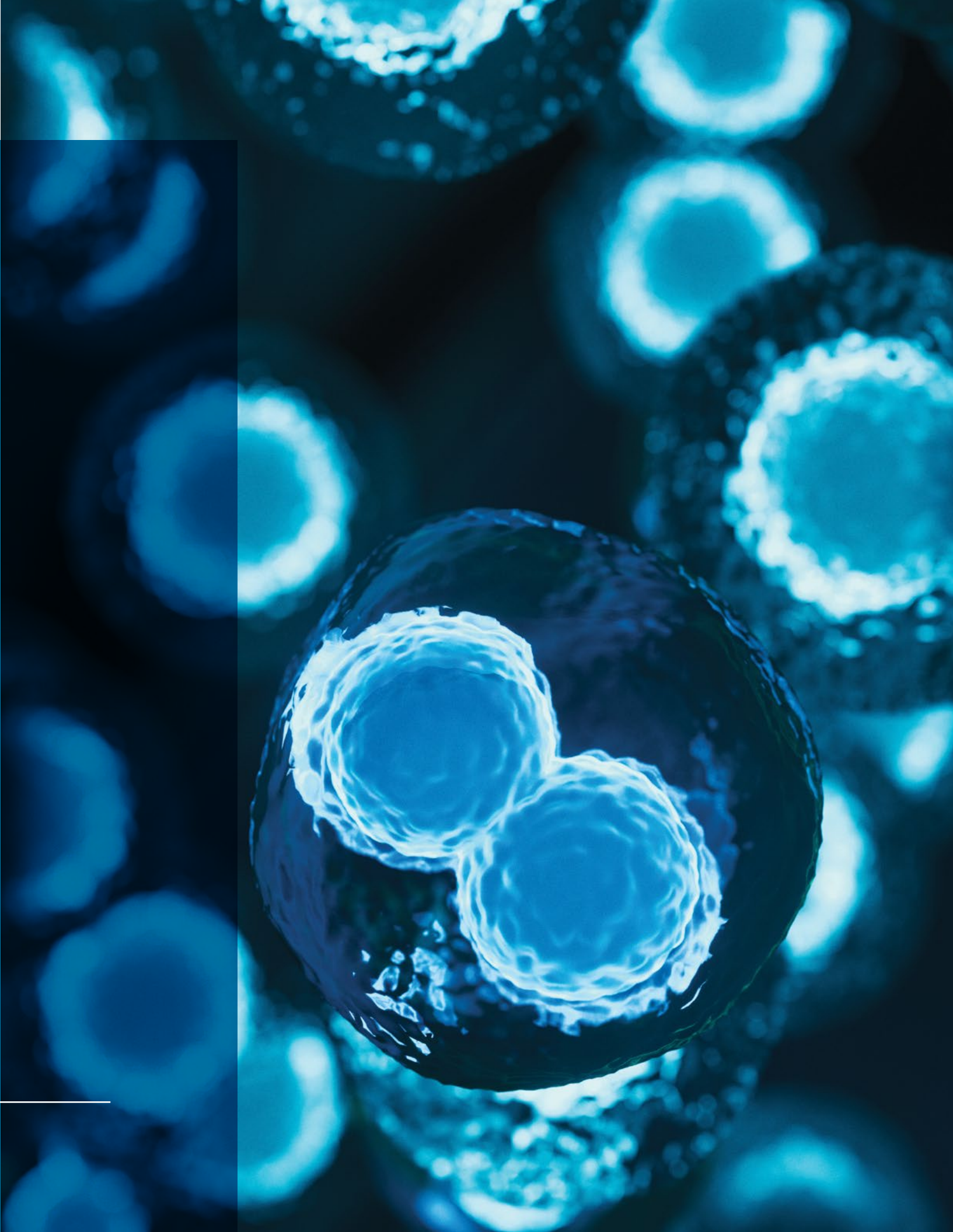
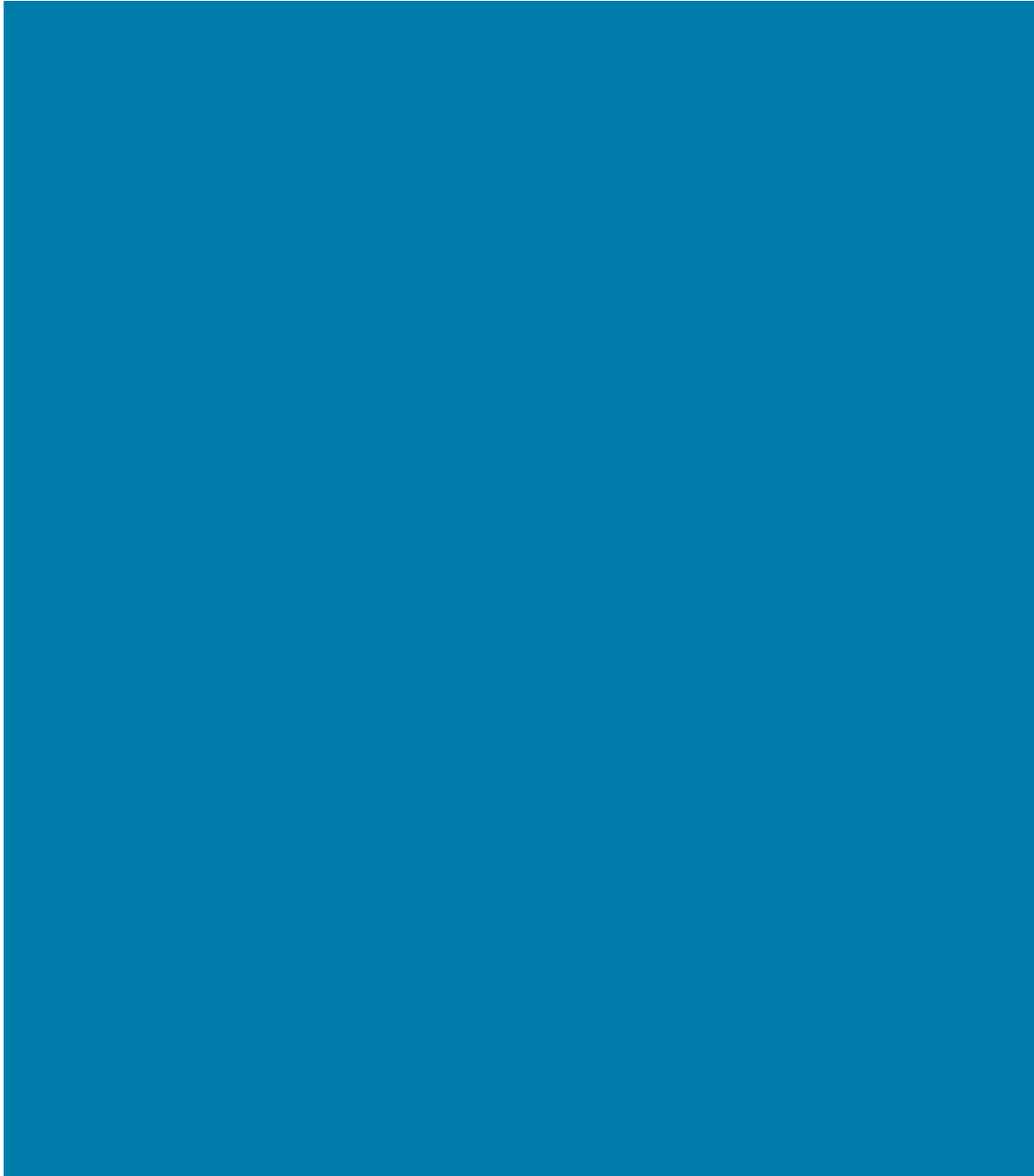
As it has throughout its history, SCN will continue fostering a strong, diverse pan-Canadian research community connected by a common vision: **to transform lives through regenerative medicine.** This vision will be achieved through partnerships, collaboration, and a resolute belief in the excellence of Canadian research and know-how to deliver regenerative medicine products to patients.

This strategic plan has been designed to provide the necessary supports and programs to respond to the state of research today. Equally, it is about ensuring the bright minds who work tirelessly in hospitals, research institutions, and universities across Canada are equipped with the tools they require to properly conduct and translate research for patients living with chronic diseases, illnesses, and injuries.

Guided by *Accelerate*, the Stem Cell Network will continue providing leadership in the stem cell and regenerative medicine ecosystem by investing in research, building talent, ensuring the latest knowledge is accessible, and preparing innovations for commercialization.

It is truly an exciting time for Canada's stem cell and regenerative medicine community. Whether you are a scientist, scholar, clinician, graduate student, industry leader, or patient, the Stem Cell Network invites you to join us in this next chapter of our ambitious journey.







Stem Cell Network Réseau de
Cellules Souches

325-350 Albert Street, Ottawa, ON K1R 1A4

info@stemcellnetwork.ca | @stemcellnetwork
stemcellnetwork.ca