



Stem Cell  
Network

Powering  
Regenerative  
Medicine

Réseau de  
Cellules Souches

Propulsons  
la médecine  
régénératrice

# TRAINING THE NEXT GENERATION OF CANADIAN TALENT

**Better health and future prosperity depend on the skills, expertise and innovative mindset of the next generation. For over 20 years, Canada's Stem Cell Network (SCN) has empowered leading researchers and trainees to drive the field of regenerative medicine forward, supporting their development through a robust training program.**

With the support of a diverse set of partners, SCN provides specialized training to ensure highly qualified personnel (HQP) are well placed to compete in Canada's knowledge-based economy and equipped with the skills to work in the regenerative medicine labs and biotechnology companies of today and tomorrow.

From skill-building workshops, courses and symposiums, to research program training, internships, and fellowships, **to date SCN has trained over 6,400 HQP across the country** and continues to offer over 15 unique training opportunities each year.

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**The Stem Cell Network's training program is like none other in Canada. From workshops to fellowships to opportunities to participate on committees and in conferences, SCN provides trainees and early career researchers with opportunities to advance their careers, establish networks, and meaningfully engage in Canada's stem cell and regenerative medicine community.”**

— PRIYE IWORIMA, PHD CANDIDATE, UNIVERSITY OF BRITISH COLUMBIA

The Stem Cell Network (SCN) is a Canadian not-for-profit that supports stem cell and regenerative medicine research; training the next generation of highly qualified personnel; and knowledge mobilization and transfer of stem cell and regenerative medicine research. From the lab to the clinic, SCN's goal is to power life-saving therapies and technologies through regenerative medicine research for the benefit of all.



# Readying Canada's HQP to Compete in the Knowledge Economy

SCN's training commitment recognizes that a well-trained workforce is a requisite for accelerating translational research and growing the Canadian knowledge economy. SCN's goal is to provide Canada's regenerative medicine research community, from HQP through to investigators, with opportunities to build key skillsets and maximize their potential for effectively participating in the regenerative medicine sector. To achieve this, SCN offers a comprehensive training program spanning four key pillars of activity: **Core Skills for Academia, Foundational Skills for Industry, Commercialization of Research, and the Art of Clinical Translation.**

The workshops, courses, symposiums, internships and other training opportunities SCN offers across these pillars are designed to:

- Promote rigour and reproducibility to maximize the translational impact of outputs arising from SCN research funding investments in regenerative medicine.
- Prepare HQP for careers in academia and industry.
- Accelerate Canadian regenerative medicine research by building competence in foundational skills and cutting-edge techniques.
- Facilitate the clinical and commercial translation of regenerative medicine discoveries.
- Support early career researchers in the development and success of new research programs.



**Core Skills for Academia**



**Foundational Skills for Industry**



**The Art of Clinical Translation**



**Commercialization of Research**

**CAREER DEVELOPMENT**



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**SCN training gave me valuable hands-on and theoretical skills that I was able to apply to my own projects. Now that I have my own lab, I am imparting this acquired knowledge upon my own trainees.”**

— ANASTASSIA VORONOVA, PHD,  
ASSISTANT PROFESSOR, UNIVERSITY OF ALBERTA

## WHAT IS REGENERATIVE MEDICINE?

Traditionally powered by stem cells, regenerative medicine (RM) focuses on replacing, repairing, or regenerating human cells, tissues and organs. A leader in the field, Canada is making strides toward unlocking leading-edge treatments for diseases such as type 1 diabetes, retinal degeneration, muscular dystrophies, lung and heart disease, as well as for neurodegenerative diseases such as Parkinson's and multiple sclerosis. It is considered by investors, economists and health policy experts to be the next frontier of modern medicine.

# Fellowships, Internships & Exchanges

Recognizing the importance of talent development, SCN leverages the strengths of its partners to provide tomorrow's life science leaders with the skills and experience required to work within Canada's burgeoning RM sector through a series of fellowships, internships and exchanges.



**FELLOWSHIPS:** SCN is proud to partner with three national health charities to offer postdoctoral fellowships — JDRF Canada, Heart & Stroke, and Multiple Sclerosis Canada. The goal of each of these fellowships is to attract new, highly qualified postdoctoral fellows to the field, further support their development, and enhance Canada's global leadership in type 1 diabetes, women's heart and brain health, and multiple sclerosis.



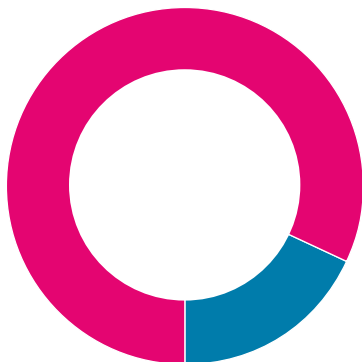
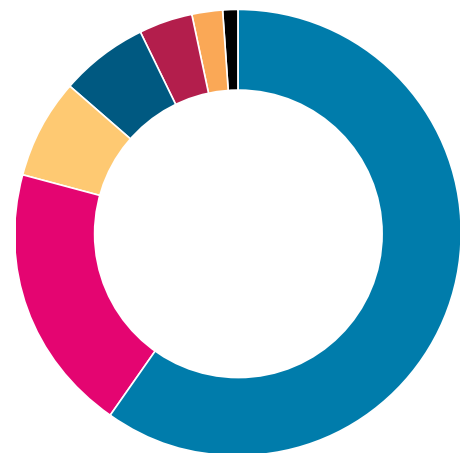
**INTERNSHIPS:** SCN's partnership with Mitacs aims to pair the brightest graduate students and postdoctoral fellows with Canadian RM-focused biotech companies that are moving innovative therapies and technologies into the marketplace. The **SCN-Mitacs Industry-based Internship Partnership** is offered through the Mitacs Accelerate program and matches up to five candidates per year to complete an eight-month internship. Successful candidates gain exposure to and work experience in industry and develop fundamental technical and business skills.



**EXCHANGES:** SCN and the UK Medical Research Council (MRC) launched the **MRC-SCN UK-Canada Exchange Program** to provide new skills to researchers, including MSc/PhD students, postdoctoral fellows, research associates, technicians, and newly independent investigators, and to build linkages between UK- and Canada-based scientists in regenerative medicine.

## Training in Canada and Staying in Canada

A 2020 Impact Analysis found that those trained by SCN possess the leading-edge skills needed to succeed in an evolving and growing regenerative medicine sector. This analysis showed that the majority of SCN trainees are remaining in similar fields, whether in academia or industry. HQP are also choosing to build their careers in Canada. For example, **82% of those tracked elected to remain in Canada following their SCN training**, and a majority found their SCN training provided meaningful value for subsequent career development and progression.



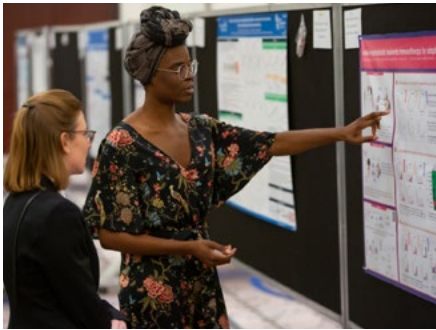
**82%** Canada  
**18%** Outside Canada

**58%** University/Hospital & Research Institute  
**19%** Biotechnology & Pharmaceutical  
**7%** Government & Legal  
**6%** Private Sector  
**4%** Non-profit/Charity  
**2%** Medical Practice  
**1%** Self-Employed



# Till & McCulloch Meetings

The Till & McCulloch Meetings (TMM) is Canada's premier stem cell research and regenerative medicine conference, attracting attendees from across the country and internationally since 2012. Hosted annually by SCN, the conference brings together over 500 world-class scientists, post-graduate students, industry experts and legal and policy scholars who share the latest research advances and techniques in the field.



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Ultimately, the training I received over the years helped me co-found TissueX Technologies to commercialize a technology that was developed in the laboratory setting for commercial use in drug discovery.”

— DR. MOHSEN AFSHAR, CO-FOUNDER AND CTO AT TISSUEX TECHNOLOGIES



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Training provided by the Stem Cell Network is critical for companies such as STEMCELL Technologies to support our future business needs and growth to serve the scientific community. In the coming years, we will significantly grow our workforce, and we need and want to recruit Canadian employees first. As such, we are pleased to be a partner with SCN in providing essential training opportunities that will better prepare trainees for careers in business.”

— DR. SHARON LOUIS, SENIOR VICE PRESIDENT, RESEARCH AND DEVELOPMENT, STEMCELL TECHNOLOGIES

## WHERE TO NEXT?

Building a knowledge economy powered by a skilled and diverse labour force is a key area of focus for SCN. By the close of the decade, SCN envisions a landscape where Canada will have an expanded 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 research.