PRAIRIES BY THE NUMBERS

SCN REGIONAL PROFILE

For nearly 25 years, the Stem Cell Network (SCN) has led the way in building national capacity in the field of stem cell and regenerative medicine by supporting world-class research and empowering leading researchers and trainees from coast to coast.

Stem cell and regenerative medicine researchers in **Canada's Prairies** are making important advancements in areas such as diabetes, cancer, multiple sclerosis, and research in the area of Ethical, Legal and Social Implications (ELSI).



FUNDS INVESTED IN RESEARCH

\$6,599,004

TOTAL PROJECTS FUNDED

CLINICAL TRIALS FUNDED

17 INVESTIGATORS SUPPORTED

INSTITUTIONS SUPPORTED

MATCHING FUNDS FROM PARTNERS

\$6,163,373

190 TRAINEES SUPPORTED

Data from 2016 onward

SCN RESEARCHERS ARE WORKING ON:



DIABETES



CANCER



MULTIPLE SCLEROSIS





UNLOCKING THE BRAIN'S POTENTIAL TO REPAIR ITSELF IN

PROGRESSIVE MULTIPLE SCLEROSIS

Multiple sclerosis (MS) is a chronic neurological disease that affects nearly 100,000 Canadians, disrupting communication between the brain and body. While current treatments can help manage the relapsing-remitting form of MS, they offer little relief for patients with progressive MS—a stage marked by continuous neurological decline and limited treatment options.

A key to treating progressive MS lies in remyelination—the regeneration of the protective myelin coating that insulates nerve fibers and enables normal brain and spinal cord function. In people with MS, this repair process breaks down, leaving nerves vulnerable to damage and dysfunction.

Dr. Anastassia Voronova is exploring a promising new approach to jumpstart the body's own repair mechanisms. Her research focuses on fractalkine (CX3CL1), a naturally occurring brain molecule that activates a receptor (CX3CR1) found on oligodendrocyte precursor cells—the very cells that can generate new myelin-producing cells. Her team is testing whether drug candidates that mimic fractalkine can safely and effectively stimulate remyelination in the brain.

If successful, this research could pave the way for the first regenerative treatments for progressive MS—offering hope to patients who currently have no therapeutic options.



"Our aim is to harness the brain's own potential to repair damaged myelin. By targeting a natural regenerative pathway, we hope to develop treatments that restore function and quality of life for people living with progressive MS."

Dr. Anastassia Voronova Associate Professor, University of Alberta





The Stem Cell Network (SCN) is a national not-for-profit that funds stem cell and regenerative medicine (RM) research; trains the next generation of talent; enables knowledge mobilization of research; and enhances the commercialization readiness of stem cell and RM innovations. From the lab to the clinic, the SCN community is connected by a common vision: to transform lives through regenerative medicine.

REGENERATIVE MEDICINE,

WELLNESS INFLUENCERS, AND SCIENCEPLOITATION

The growing popularity of regenerative medicine has sparked a surge of online misinformation, particularly in the wellness industry. From anti-aging supplements to unproven stem cell therapies, wellness influencers are increasingly misusing RM science to promote products and lifestyles that can mislead the public and, in some cases, cause harm.

Prof. Caulfield's project aims to uncover how RM science is distorted for commercial gain across digital platforms. His team will map the flow of misinformation, identify the influencers and platforms driving it, and explore the social forces behind this trend. The goal is to inform science communication, policy, and regulatory action—ensuring the public can better distinguish credible science from hype.

Working with partners like #ScienceUpFirst and BC Cancer, the project will produce a suite of public-facing resources, including a dedicated website, podcast, and policy recommendations to counteract misinformation and support informed decision-making.



"Misinformation around regenerative medicine isn't just confusing—it can be harmful, exploiting vulnerable people and undermining trust in real science. Our work will shine a light on how these ideas spread online and help develop strategies to protect the public and promote evidence-based science."

Timothy Caulfield

Professor, School of Biomedical Engineering, University of Alberta



Got a minute?

Learn what stem cell tourism really is — and why it's raising red flags worldwide. Watch Prof. Timothy Caulfield break it down here.





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