MS. PROGRESS Report

One woman's MS journey from denial to acceptance:

Meet Catherine Van

For some people, denial is the first stage of managing an overwhelming situation. When Catherine Van first heard the words "multiple sclerosis (MS)," she was no exception.

After experiencing numbness and tingling sensations on her face in 2010, Catherine saw her doctor who diagnosed her with MS. She confided in her parents and husband, but chose not to share her symptoms with the public out of fear and confusion.

"For years, denial kept me from facing my MS headon," Catherine explains. "Rather than learning how to live with it, I was ashamed of the disease and hid from it. Not fully accepting it in the early years of my diagnosis had a great effect on my mental health and depression."

Catherine welcomed her first daughter, Arden, in 2014. Shortly after, she experienced a relapse. The familiar tingling forced a heartbreaking question: Was it time to take medication, or forgo treatment and try to conceive another child?

My MS is something I accept fully now, and I want to help people understand that there is nothing to be ashamed of. 99

After carefully weighing her options, Catherine chose to make a personal sacrifice, putting her MS medication on hold to expand her family. She and her husband, Lawrence, welcomed second daughter, Grayson, in 2017. But soon after, she experienced another relapse...



and this time, with two babies to care for, Catherine made her own health a top priority.

"I made the hard decision to stop breastfeeding, as I had to take my MS medication a lot sooner than I had intended," Catherine says. "I spent a lot of time crying alone and feeling tremendous guilt. If I could have talked to someone who had been in my shoes before, I think it would have helped."

Ultimately, the pain of not having a support system outweighed the discomfort of feeling vulnerable. Catherine knew she needed help to heal. She finally immersed herself in the MS community through her local Walk event and *Burgers to Beat MS*, where she met new friends who could truly understand — because they've lived it.

Now, Catherine's whole family joins her at local MS Society events whenever they can. Catherine's difficult, decade-long journey with MS has led her to a community and support system — one that helps her overcome those difficulties. By sharing her personal experiences, Catherine now helps to guide and inspire her whole family and community.

"I want people to know they're not alone... everyone has a unique story to share. This journey has been so healing," she says.



A Message from the **President**Dr. Pamela Valentine

As you know, the COVID-19 pandemic created one of the most challenging and isolating periods in modern history — and for members

of our community, the daily difficulties of living with MS became unimaginably hard. But, thanks to kind-hearted people like you, they were able to find the connection and care they needed through the MS Society of Canada.

Good friends like you helped bring our MS Knowledge Network to life — and during COVID-19 when many people couldn't see their general practitioners, it quickly became the gold standard for people living with MS to access telehealth resources and expert guidance.

But that's not all. Your loyal support also allowed us to maintain our momentum in advancing MS research. Against all odds, and not without sacrifice, we were able to continue our strong phase 3 trials for promising research studies happening across the country — and it's all thanks to the dedication and compassion of partners like you.

Looking ahead, as we continue to navigate through the world of COVID-19 and its ongoing impact on the MS community, it's so crucially important that we keep pushing for progress. Here at the MS Society of Canada, we are cautiously optimistic and excited about what the next year can bring us in terms of MS treatments and therapies. We're also hopeful that the research we're investing in now can one day soon lead us to a cure.

Collaborations are where true change occurs. We see it every day in our research teams, and in the generosity of friends like you. When we work together, we can do incredible things. I hope you'll continue your support today — and help us achieve even more for our fellow Canadians living with MS. Thank you in advance for your compassion and commitment.

Sincerely,

Dr. Pamela Valentine
President and Chief Executive Officer
Multiple Sclerosis Society of Canada



Creating a world free of MS ... for all.

The MS Society of Canada is committed to creating an equitable, diverse and inclusive organization because, as we know, MS doesn't discriminate. We also understand that diversity and inclusion are critical to driving innovation and improving health outcomes for people living with MS.

To help drive change for diverse communities, we've collected feedback from the MS community on ways to develop more organizational equity. Their answers will help provide the basis for this important work as we move forward. To learn more, visit mssociety.ca/diversity.

Making MS info, research and wellness accessible to you



Join us for MS Connect, our free online conference the brings people affected by MS together with health professionals and researchers from across the country. At our interactive sessions that you can tune in for and watch live from the comfort of your home, we focus on:

- ♦ Wellness
- Social connections
- Expert advice on living well with MS
- MS research discussions about the latest groundbreaking discoveries

To see upcoming or past sessions, read about our speakers and register for sessions you're interested in, visit us at msconnect.ca.

New Research Study Investigates Metformin as a Therapy to Promote Brain Repair and Reduce Disability in Children and Young Adults with MS

While existing MS therapies effectively target inflammatory factors related to the disease, there's still a need for treatments that can promote brain repair and reduce disability in people living with MS.

That's why we're so optimistic about metformin, an approved, widely used and safe drug prescribed for type 2 diabetes. This therapeutic agent could be repurposed to promote brain repair and regeneration and potentially reverse the progressive nature of MS.

We are thrilled to announce that with your help, the Multiple Sclerosis Society of Canada announced \$400,000 in funding to support a pilot clinical trial to investigate the use of metformin as a therapy for children and young adults with MS.

Damage to white matter in the brain occurs in people with MS, resulting in sensory, motor, and cognitive problems. Evidence from previous studies shows metformin enhances oligodendrocytes — cells that produce myelin - and promotes white matter repair



in animal models and in youth with radiation-induced brain injury.

This new research aims to translate these preclinical findings from animal and human studies into clinical practice by conducting a pilot feasibility trial. Dr. Ann Yeh of The Hospital for Sick Children [SickKids] at the University of Toronto will be the lead investigator of the study, and she'll be joined by a team of nine Canadian researchers.



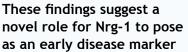
Dr. Soheila Karimi

Dr. Soheila Karimi is an Associate Professor at the University of Manitoba, working in the Department of Physiology and Pathophysiology, as well as the Regenerative Medicine Program.

Most recently, Dr. Karimi and her team have focused on studying Neuregulin-1 (Nrg-1), a critical protein for neural cells and myelin in the central nervous system. They've discovered reduced levels of Nrg-1 protein in mice with an MS-like disease (i.e., experimental autoimmune encephalomyelitis or EAE mice). They further confirmed a decline in Nrg-1 in individuals with early MS (clinically isolated syndrome), which is associated with subsequent progression to relapsingremitting MS. Interestingly, by providing Nrg-1 as a therapy, they were able to delay disease onset and alleviate disease progression and neurological impairment in EAE mice.



Research is an exciting and dynamic process. It's a collaborative effort. We learn something new each day. 99



for MS as well as a promising targeted therapy to improve MS progression and disease severity. Nrg-1 is a drug already approved by the US FDA and could be utilized in MS therapy if proven effective for MS. Dr. Karimi's team is currently evaluating the potential of Nrg-1 therapy in promoting myelin repair in progressive stage of EAE.

Dr. Karimi and her team's work has the potential to change countless lives around the world - and to help the MS community get ahead of future diagnosis and treatment. We are so thankful to you for helping drive progress through vital research like this.

To learn more, visit mssociety.ca/research.



COVID-19 and MS: What you need to know

Throughout the pandemic, the MS Society of Canada has offered COVID-19 guidance to members of the MS Community — and as long as this novel coronavirus continues to impact our lives, we remain dedicated to doing so.

Vaccines are the strongest tool we have to fight COVID-19, and the science has shown us that the approved COVID-19 vaccines are safe and effective. Like other medical decisions, we recommend discussing your options with your healthcare provider — but we want people with relapsing and progressive forms of MS to know that we advise getting vaccinated.

The bottom line? The risks of COVID-19 likely outweigh any potential risks from the vaccine. This is especially true for patients who are at high risk of contracting COVID-19 because of their work or living conditions and whose comorbidities are those that have been noted to pose a higher risk of contracting or suffering from COVID-19.

In addition to getting vaccinated, the science is settled that wearing a face mask, practicing social distancing and washing your hands are the best ways to slow the spread of the virus and should be continued even if you get a COVID-19 vaccine.

The health and safety of the MS community is our top priority - and we will continue to share critical and pertinent information on COVID-19 as it emerges.

To learn more about navigating the pandemic while living with MS, visit us at mssociety.ca/resources.



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