

MS PROGRESS REPORT

Learning to enjoy the small things with MS: Meet Mel Thompson

Mel and her husband are excited to bring a new baby into the world. But Mel wasn't always sure she'd be able to carry a pregnancy because of her multiple sclerosis (MS) diagnosis. "I was very scared. I remember wondering if I was going to be able to have children," Mel explains.

It took Mel a while to come to terms with her new life. After a sudden incident with numbness, she had an MRI and discovered she had two active lesions in two different areas of her nervous system. **"I was in shock. And when I got the official diagnosis, it was very sad,"** Mel says.

“Living with MS has put everything into perspective for me and it has taught me to really enjoy the small things.”

But Mel wasn't going to let MS get in the way of living her life. After the initial shock she felt when learning about her diagnosis, she began focusing on her health and managing her symptoms.

"Even during my pregnancy, I try to exercise for at least half an hour to an hour a day, and I also try to get lots of rest," explains Mel.

Like many women with MS, Mel has experienced relief from her symptoms while she's pregnant. "My



Mel and her husband, Patrick.

neurologist explained that it's the best time for my central nervous system to take care of itself," says Mel. "I've found that I've been feeling better. And the best part is that I don't have to take my MS injections right now."

Mel knows that there is something to appreciate about life every day. She enjoys her job working with leadership coaches and values the time she spends with her husband and their dog.

"I love that I can take my dog on walks and take care of my body at the same time," says Mel. "I have an amazing support system and I choose to live every day with positivity. I hope that other people with MS can be just as happy, if not happier, than they were before their diagnosis."

A message from the President

As another spring is upon us, I want to thank you for everything you've done to help support Canadians living with MS and advance life-changing research.

At MS Canada, our commitment to helping Canadians facing the challenges of this disease, both physically and mentally, remains steadfast. I am happy to tell you that we are continuing to develop innovative programs designed to improve mental health and create avenues for individuals living with MS to connect with others in similar circumstances.

With your continued generosity, we are also pioneering critical research with the hope that one day, we will find a cure. Right now, researchers funded by MS Canada are gaining new insights into everything from genetics and tissue repair to rehabilitation and disease modifying therapies.

In this edition of the MS Progress Report, you'll learn what Dr. Dalia Rotstein is doing to better understand the timeline from an Epstein-Barr virus (EBV) infection to the onset of MS. You'll also be inspired by how Mel, an excited mother-to-be, finds joy in the small things while living with MS.

With allies like you by our side, we can create a world free from MS. On behalf of the entire MS community, thank you for your compassion.

Sincerely,



Dr. Pamela Valentine
President and Chief
Executive Officer
MS Canada



RESEARCH IN ACTION

MS Canada supporters like you have improved the lives of people with MS by advancing research to develop effective treatment options, and ultimately, discover a cure. Here's a quick overview of our efforts:



Investing in research

We've invested over \$218 million in groundbreaking research over the last 75 years.

Focusing on what matters

MS Canada researchers are focusing on three critical areas of research such as disease mechanisms, myelin repair, rehabilitation and symptom management.



Engaging young researchers

Education and training programs, mentorship initiatives, and networking opportunities all help encourage collaboration among the next generation of MS researchers.



Accelerating progress

To ensure that momentum in MS research continues, we administer an annual research competition that provides support for the most impactful research projects.



Sparking participation

We provide many opportunities for people with MS to participate in research studies that can help pioneer new treatments and shed light on the causes of this disease.



Thank you for helping us drive cutting-edge research progress on behalf of every Canadian living with MS.

SPOTLIGHT ON RESEARCH

Dr. Dalia Rotstein, MD

Dr. Dalia Rotstein is a neurologist with a clinical sub-specialization in MS. Her research is focused on understanding how factors such as ethnicity, gender, and vitamin D affect disease risk and development.

She is also researching how and when MS develops following an Epstein-Barr virus (EBV) infection. EBV results in infectious mononucleosis, which is a known risk factor for MS. Dr. Rotstein and her team are evaluating population health data to determine the timeline from infectious mononucleosis to the onset of MS. They're also looking at the timeline from infectious mononucleosis to the beginning of the MS prodromal phase — a period of early, non-specific signs and symptoms prior to MS onset.

This research has the potential to guide future diagnostic and therapeutic developments for early

detection and prevention of MS. “I am inspired to pursue research by the great strides that have been made in MS care over the last 20 years, and the significant work that remains to enhance quality of life in people with MS,” explains Dr. Rotstein.



Dr. Rotstein is extremely devoted to her work and always looks for opportunities to delve into new data and make unique discoveries. “I enjoy the ‘Eureka’ moment after all the data is collected,” she says. “You feel like you have finally scaled the mountain. Sometimes you are surprised by what you find.”

Scan here to learn more:



Cognition can be improved in people with progressive MS

An update on Dr. Anthony Feinstein's research

In Dr. Anthony Feinstein's clinical trial to improve cognition in those living with progressive MS (CogEx), funded by MS Canada, a group of researchers investigated whether cognitive rehabilitation, aerobic exercise, or a combination of both, could lead to improved cognition.

Cognitive dysfunction currently affects approximately 40%-80% of people with MS, with the greatest rates being in those with progressive MS.

Impaired cognition affects a person's ability to work, maintain relationships, and perform daily tasks. There are currently no known treatments for improving cognition in people with progressive MS. The clinical trial took place across Belgium, Canada, Denmark, Italy, the United Kingdom, and the United States and included a total of 311 participants.

While the results of the clinical trial did not show that cognitive rehabilitation combined with aerobic exercise

was better than either intervention alone in improving cognition, they did find that cognition can be improved in people with progressive MS:

- Two-thirds of all participants showed improvement in their information processing speed even those who did not perform cognitive rehabilitation or aerobic exercise.
- Half of participants with improved processing speed retained these improvements six months after the intervention.

This finding could have a big impact, but we need more research to identify exactly how to improve cognition in people living with MS.

Scan here to learn more:



First genetic factor associated with disease severity in MS: Uncovered

Identifying new pathways involved in the progression of MS

Prior studies have identified over 200 genetic factors associated with the increased risk of developing MS. However, we have not yet identified genes that affect longer-term health outcomes.

Recently, a large international research project examined whether there were any factors that influence the risk of disability progression in MS. The study analyzed data from over 22,000 individuals living with MS from across North America, Europe, and Australia.

The analysis revealed a genetic factor associated with longer-term outcomes and increased risk of

disease severity. The gene variant was also found to be associated with a shorter median time to needing a mobility aid by almost four years and an increased risk of lesions in the brain associated with disease progression.

This study is the first to provide evidence for the role of genetic factors in MS disease severity. Effective treatments targeting progression remain a major unmet need, but this research has provided potential new targets for drug development.

Scan to learn more:



Build connections this World MS Day on May 30, 2024

Join members of the international MS community for World MS Day 2024, as we work to combat the disease and challenge the barriers it can create — barriers that too often leave those who live with MS feeling lonely and isolated. That's why our goals are to help people build community connections, foster self-connection, and make the right connections to the health care they need and deserve.

Join the conversation when you post your own **#MSConnections**



Leave a legacy of hope for Canadians living with MS

You can invest in a world free of MS and leave a legacy of hope with a bequest to MS Canada. Your legacy gift will help generations of Canadians living with MS and support research searching for new treatments and therapies.

For more information about legacy giving, contact us at mslegacy@mscanada.ca or 1-800-268-7582.

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