

# MS<sup>®</sup> PROGRESS Report

## Could a common supplement reduce MS progression?



*Dr. Rebecca Spain*

**T**he Multiple Sclerosis Society of Canada has partnered with the National MS Society to fund a new clinical trial to determine if lipoic acid, a common supplement, can reduce progression in multiple sclerosis.

The research team will be led by Dr. Rebecca Spain at the Oregon Health & Science University, with Dr. Mark Freedman from the Ottawa Hospital and University of Ottawa leading the Canadian site. In total, there will be seven sites across North America that are recruiting and monitoring participants.

### What is lipoic acid?

Lipoic acid is both an over-the-counter supplement and natural antioxidant that can be found in foods like spinach, broccoli and potatoes. Its antioxidant properties can block the action of by-products in the body that cause tissue injury in MS.

In an animal pilot study, lipoic acid has shown to help

reduce inflammation and disability in mice that have an MS-like disease. And in a small human trial, participants who took lipoic acid had a 68% decrease in brain volume loss compared to individuals who took a placebo.

### Our research strategy to determine lipoic acid's impact

Our new clinical trial will further investigate lipoic acid's impact on MS progression by enrolling 118 participants living with MS from across North America. Each participant will be randomly assigned to take a potent oral form lipoic acid or a placebo for two years.

Throughout the trial, the research team will monitor participants for safety, as well as look for any changes in neurological exams and brain MRIs. Then, in late 2021, the clinical trial will conclude with an analysis of the data to determine if lipoic acid made a difference in slowing the rate of brain atrophy and MS progression.

If the results of this groundbreaking clinical trial are positive, lipoic acid could become an inexpensive, safe and easily accessible treatment for progressive forms of MS. And because there is only one other approved disease-modifying therapy in Canada for progressive MS, lipoic acid could truly change the lives of countless people living with MS.

**To learn more about the lipoic acid trial, visit [www.mssociety.ca/lipoic-acid-trial](http://www.mssociety.ca/lipoic-acid-trial)**





MESSAGE FROM THE PRESIDENT

Dr. Pamela Valentine

As a fellow Canadian, I know you're as invested as I am in the future of our country. That's why I'm so excited to tell you about the Multiple Sclerosis Society's new strategic plan.

Alongside volunteers, staff, researchers, clinicians and others within the Canadian MS community, we have created a powerful roadmap for our journey toward a world free of MS. The goals of this new strategic plan are bold, but we believe they can be achieved if we work together.

**Advance treatment and care** means diagnosing MS earlier and treating it more effectively. After all, helping those affected by MS, whether it's the individual living with the disease or those caring for them, is the driving force behind all of the important work we do, both in communities across Canada and in labs and universities around the globe. Research like the in-progress lipoic acid clinical trial, led by Dr. Rebecca Spain – which seeks to determine whether an affordable, over-the-counter supplement offers an effective therapy for secondary progressive MS – is directly linked to this end goal. As with all our vital research, your support makes clinical trials like this possible.

**Enhance well-being** means improving access to social supports that effect the individual's disease trajectory. This involved all areas of our work in our mission delivery - advocacy, programs and research. Through efforts like Day on the Hill, where we advocate for policy change that benefits people affected by MS, we are working toward reducing systemic barriers whether they are financial, physical, or social. Thanks to our generous donors, Dr. Helen Tremlett recently completed a study to decode the relationship between socioeconomic and disease progression. From access to education and accurate diagnosis to the ability to advocate for effective care, our hope is to get the right tools and knowledge into the hands of every Canadian in need.

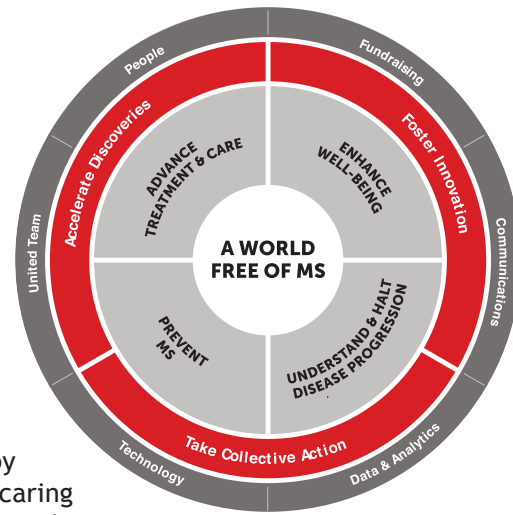
**Understand and halt disease progression** is vital in helping with early diagnosis, drug target identification, drug treatment response, and disease prevention. This type of research can take years, and long-term studies can be difficult and expensive to fund. However, research related to biomarkers that can help identify aspects of disease progression are greatly needed in order to fully understand the course of MS.

Ultimately, we want to **prevent MS**. We want to reduce the number of people who develop MS by stopping it before it begins. It is our hope to see an MS-free generation become a reality in our lifetime.

Generous people like you made this ambitious plan possible, and you're also the reason we believe it is attainable. Because so many people are counting on us, I hope you will continue your support and help us achieve our vision for the years ahead. Thank you in advance for your loyalty and commitment.

Sincerely,

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



RESEARCH SPOT LIGHT:  
Dr. Helen Tremlett, PhD

“Canada is a great place for collaborative MS research. And having a dedicated organization like the MS Society focused on MS is hugely important.”

– Dr. Helen Tremlett



As the leader of the Tremlett Lab and the Epidemiology in Multiple Sclerosis (MS) research program, Dr. Helen Tremlett has been making a life-changing impact in the MS community for over a decade.

After getting her start in MS research through a post-doctoral award from the MS Society of Canada, Dr. Tremlett has gone on to author more than 180 peer-reviewed papers on all areas of MS. Today, Dr. Tremlett serves as the Canadian Research Chair in Neuroepidemiology and Multiple Sclerosis at the University of British Columbia, where she leads a number of high-quality research studies, including:

**From bugs to brains: the gut microbiome in paediatric multiple sclerosis**

The microbiome of people living with MS is significantly different from those without MS. This study will examine the composition of the gut microbiome in children living with MS to gather clues about how bacteria in the gut can influence the development of MS in the earliest stages of the disease.

**Assessing safety monitoring in patients taking oral multiple sclerosis treatments**

Three oral disease-modifying therapies have been approved to treat MS in the last five years, and as with any new drug therapy, it's important to monitor those who use the drug on an ongoing basis to ensure its continued safety and efficacy over time. Along with her team, Dr. Tremlett will examine drug utilization, early safety signals and rates of adherence to the oral drugs in order to gain an understanding of how the drugs are used.

Thanks to your generosity, Dr. Tremlett and her team continue to conduct groundbreaking research studies and create positive change for the MS community.

MS in the NEWS

**Mesenchymal stem cell (MSC) therapy proven as a safe treatment for MS**

This past fall, the preliminary results of a groundbreaking international trial showed that MSC therapy is safe, and appears to have no serious adverse effects. Even more promising, participants who received MSC treatment showed a decrease in MS relapses when compared to the placebo group. Though the data did not show a statistically significant effect on the number of contrast lesions by MRI at 24 weeks, the researchers see a positive overall trend and will continue to analyze the study data.

“This clinical trial was a tremendous international effort that required involvement and support from a number of researchers, funders and people living with MS. Understanding that mesenchymal stem cells are a safe treatment option for MS is an important milestone and outcome of the trial,” says Dr. Mark Freedman, one of the leaders of the trial's Canadian arm, MESCAMS (MEsenchymal Stem cell therapy for CANadian MS patients).

Dr. Freedman continued, “We're hopeful that further investigation of the data will provide insight into whether there is a link between participants that demonstrated a

*biological effect from MSC treatment, either reduced MRI lesions or relapses, with evidence of repair.”*

MSC therapy uses a participant's own stem cells to subdue the harmful immune cells that drive MS. And unlike other stem cell treatments, it does not require intensive chemotherapy to be effective. Because of this, MSC therapy carries a lower risk to participants and diminishes the likelihood of rejection of the stem cells.

In this clinical trial, participants were randomly assigned to be given two infusions of their own MSCs or a placebo. Each participant was then followed for 24 weeks and examined for reduction in inflammation, brain lesions, relapses and progression.

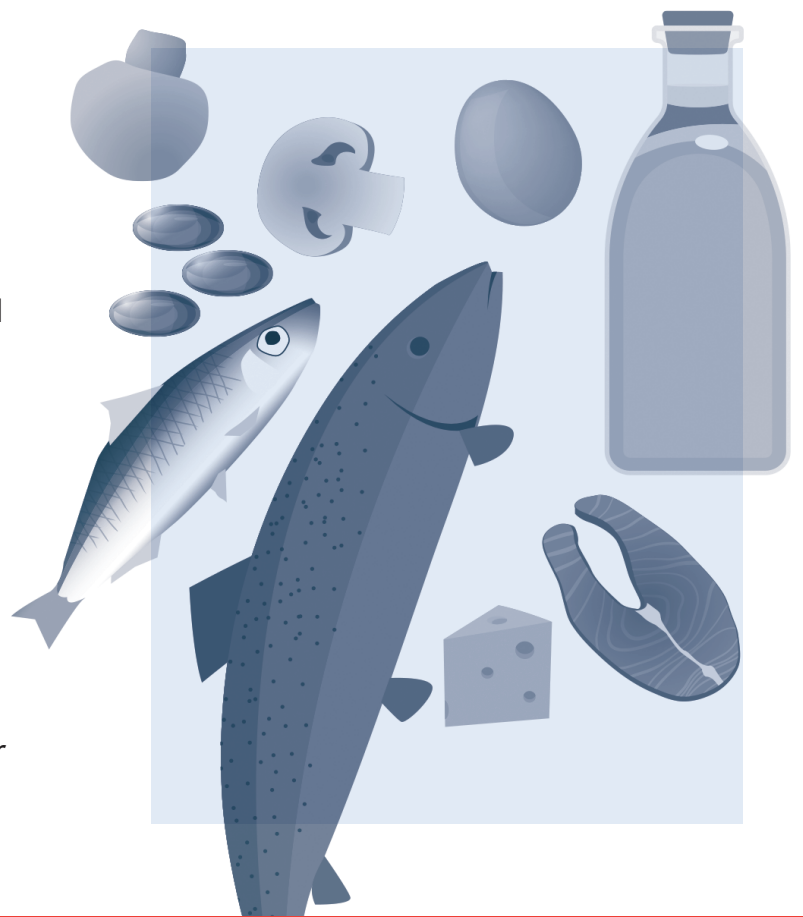
As researchers continue to analyze the data, they hope to document additional possible outcomes of MSC therapy, and learn more ways this groundbreaking treatment approach could improve life for people living with MS. And it's all made possible by generous Canadians like you.



# MS Society's vitamin D recommendations reaching Canadians country-wide

After releasing our vitamin D recommendations in early 2018, the MS Society has both developed and distributed comprehensive vitamin D guidelines for healthcare practitioners and Canadians at risk of developing MS.

In doing so, our vitamin D recommendations are reaching more Canadians and guiding clinical practice across the country. And because some studies suggest that getting enough vitamin D every day can decrease the chances of developing MS, it is our hope that these new recommendations could make a difference in our efforts to reduce the rate of MS in Canada.



## 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 the MS Society of 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, please call Gordon Moir at 1-800-268-7582 x3119

## I connect, we connect at World MS Day on May 30, 2020

Join members of the international MS community for World MS Day 2020, 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 theme for MS Day 2020 is connections. 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



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See you online!

