World MS Day is May 27
MS impacts people around the world, who share the same hopes and dreams. On World MS Day this May 27th, we’ll join together to raise awareness of multiple sclerosis and encourage people from all nations to work toward a cure.

Gear Up to Fight MS
Register today for MS Bike and join the 10,000 participants who are cycling to fight MS! Since 1989, cyclists of all ages and fitness levels have joined together to raise money for the MS Society of Canada. To learn more, register, or donate, go to msbike.ca.

Volunteer Week
On National Volunteer Week, We Celebrate You!
National Volunteer Week pays tribute to the millions of Canadian volunteers who graciously donate their time and energy to charitable causes. From April 12-18, 2015, we salute all those who make Canada, and the world, a better place to live.

Not a volunteer yet? This is the perfect time to join us.
If you haven’t volunteered for the MS Society of Canada, this is the perfect time to start. From participating in our MS Walk to fundraising for our Friends & Family Drive and helping out at your local chapter, volunteers are the lifeblood of our organization. We are so very grateful for their help.

Find out more at mssociety.ca/get-involved
Or, if you’d like to get involved with your local MS Chapter, simply contact your division office at 1-800-268-7582.

Canadian Clinical Trial
Ottawa Hospital Research Institute, and Dr. James Marriott of the University of Manitoba. Both researchers and their teams possess the expertise and clinical background to carry out this high-level research and position Canada as a leader in the field.

Beyond the critical issue of participants’ safety, MESCAMS will provide clues about the benefits of this treatment for people living with MS, based on early encouraging evidence in animals showing that mesenchymal stem cells can reduce inflammation and potentially promote repair.

One of nine parallel independent international studies, this Canadian trial will engage 40 participants over a 48-month period involving the treatment and follow-up. Stem cells will be collected from each participant, multiplied in the lab, and then administered to the participants via intravenous infusion. Because each person receives their own stem cells – a process referred to as autologous transplantation – there is minimal risk of rejection from the procedure. Dr. Freedman says it is not thought that the stem cells of patients with MS are affected by the disease. “By using autologous cells, we are tapping into the body’s own ability to generate repair, and should have no immunological issues,” Dr. Freedman said.

Researchers will examine outcomes from the Canadian population, but will also pool the results from an expected 160 international participants overall. By leveraging knowledge and data, the international research groups will attain statistically relevant conclusions regarding the safety and benefit of the novel treatment for MS.

Such innovative studies would not be possible without the support of dedicated friends who are determined to help bring an end to multiple sclerosis. Only with this commitment will we chart new pathways, develop treatments that improve the quality of life for people living with MS, and one day discover a cure.

A Message from the President
Yves Savoie
The landscape of MS research is changing – and thanks to you, the MS Society is leading the way. As you’ll see in this issue of your Progress Report, we are committed to advancing our understanding of progression and speeding up the time it takes for research to become therapies that benefit people with MS.

One excellent example is a study exploring the potential of mesenchymal stem cells and its ability to reduce inflammatory activity in people with MS. Ultimately, our hope is that these investigations can lead to the repair and treatment of nerve tissue.

Another landmark study has identified a biomarker (a measurable indicator of a biological process used as a predictor of health or disease) in some people with primary progressive MS that may lead to effective therapies. This is a groundbreaking advancement in our aggressive pursuit of therapies and treatments for primary progressive MS where none have been available.

Both of these critical endeavors are described in the pages of your Progress Report.

In everything we do, our focus is on people and families affected by MS, whose quality of life depends on meaningful treatments and services. With your partnership, we will continue to explore innovative research that will lead us to treatments with all due speed.

I am proud of all we accomplish together, and I am deeply grateful for your support as we seek to end MS.

Warm regards,
Yves Savoie
President and Chief Executive Officer
Multiple Sclerosis Society of Canada

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Progress Report
Vol 21 A PERIODIC NEWSLETTER FOR OUR LOYAL CONTRIBUTORS SPRING 2015
Myelin-repair drug passes phase 1 safety tests

A new study published by Dr. Jonathan Tran shows that a myelin-repair drug called BIIB033 is safe and well-tolerated in clinical trials. The study tested the safety and tolerability of the drug at doses up to 100 mg/Kg.

Positive results in terms of the safety and tolerability of BIIB033 have paved the way for phase II clinical trials. These results are significant because myelin damage, which often leads to severe disability in conditions like multiple sclerosis (MS), cannot be reversed.

The drug works by removing the breaks on the repair of nerve fibres, and is also damaged in MS. The hope is that BIIB033 will help reverse myelin damage and enable people living with MS to walk, talk, and lead a more normal life.

MS is the most common neurological condition affecting young adults in the world. According to a study conducted by the University of British Columbia, an estimated 10 to 15% of people with MS suffer from progressive MS (PPMS), a form of the condition that is characterized by steady progressive deterioration in neurological function without remissions.

The MS Society will be sure to keep you updated on the exciting results of this promising new drug therapy in neurological function without remissions. Yet, immune-directed therapies, which are the mainstay of relapsing-remitting MS treatment, appear to offer little if any benefit to people with PPMS.

That’s what makes the result of this study, funded in part by a collaborative grant from the MS Scientific Research Foundation, potentially groundbreaking.

A research team led by long-time MS Society grantee, Dr. Amit Bar-Or, identified a biomarker (a measure used to quantify progress) that can distinguish certain PPMS patients who may be able to benefit from immune-directed therapies. The work investigated immunoglobulin (Ig) M, an antibody that can be detected using a method called oligoclonal band (OCB) testing. Screening for this antibody shows great promise as a potential tool to detect active inflammatory disease in people with PPMS, which could aid in determining the appropriate treatment for these individuals.

Myelin-repair drug passes phase 1 safety tests

A new study published by Dr. Jonathan Tran and colleagues marks a turning point for MS treatments. The study tested the safety and tolerability of a novel drug called BIIB033 which works by removing the breaks on the repair of myelin, the protective coating that surrounds nerve fibres, and is also damaged in MS. The hope of myelin repair (or remyelination) is that it holds out promise of restoring lost function in people with MS, and can slow or halt the accumulation of damage, which often leads to severe disability.

Results of the phase I clinical trials demonstrated positive results in terms of the safety and tolerability (ability for the body to process the drug) of BIIB033 at doses up to 100 mg/Kg. There were no serious adverse effects reported. These results pave the way for phase II clinical trials, which are already underway and will provide more information about the treatment capabilities of BIIB033.

The MS Society will be sure to keep you updated on the exciting results of this promising new drug therapy.
The MS Society will be sure to keep you updated and provide more information about the treatment trials, which are already underway and will test a new drug (BIIB033) at doses up to 100 mg/Kg. These results pave the way for phase II clinical trials, which showed positive results in terms of safety and myelin repair (or remyelination) is that it holds great promise as a potential tool to detect active inflammatory disease in people with PPMS, which could aid in determining the appropriate treatment for these individuals.

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The MS Society will be sure to keep you updated on the exciting results of this promising new drug therapy

SPOTLIGHT ON:
MS Society Grantee Dr. Hilda de Jong

Thank you to the MS Society of Canada, which is able to fund research that is aggressively searching for new treatments and cures for MS. Our study found that the MS Society of Canada is committed to finding a cure for MS.

We asked her a few questions about what inspired her – and why her research is important to Canadians living with MS.

How did you become interested in MS research?

At the EndMS Summer School in Vancouver and Halifax, I met people living with multiple sclerosis. Hearing their stories inspired me even more to conduct research on MS in order to improve their health outcomes and quality of life.

Can you describe your research?

There remains a real need for better therapies for the treatment of MS.

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Yvon Saint

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Multiple Sclerosis Society of Canada

Vol 21
A PERIODIC NEWSLETTER FOR OUR LOYAL CONTRIBUTORS
SPRING 2015

Canadian Clinical Trial Explores Treatment Potential of Mesenchymal Stem Cells

The promising path from stem cell research to therapeutic treatments is taking a major step forward with a landmark study focusing on multiple sclerosis.

As you might know, stem cells can mature into specialized cells that serve a specific function in the body. They are also able to produce exact copies of themselves. Recently unveiled unique properties of stem cells position them as promising candidates for treatments that can slow MS disease activity and repair tissue damage in the central nervous system.

A new multi-site research investigation, funded by the Multiple Sclerosis Scientific Research Foundation, the government of Manitoba, and A&W Food Services of Canada Inc., seeks to show that mesenchymal stem cell therapy (MSCT) is safe and that it reduces inflammatory activity in people living with MS. In addition, and significantly, it will determine the ability for MSCT to lead to repair of nerve tissue and subsequent recovery of neurological function.

Mesenchymal stem cells can develop into important tissues in the body such as bone and fat, and have shown a capacity to repair nerve cells through mechanisms not yet fully understood. Today, there are no approved stem cell therapies for MS; all therapies currently target the reactive immune system, which helps to reduce relapses and slow the progress of the disease. In addition to targeting inflammation, stem cells possess the potential to stimulate repair, which is an entirely different and exciting strategy.

The project, referred to as Mesenchymal Stem cell therapy for Canadian MS patients (MESCAMS), is led by principal investigators Dr. Mark S. Freedman of the

Canadian Clinical Trial
Continued from page 4

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