



# 2017 endMS Summer School Agenda

*Moving MS Research Forward through Clinical and Biomedical Partnerships*

## Location Guide

Building Name & Address	
Macpherson College Residence – 40 Livyers Loop	Health Sciences Centre – 300 Prince Philip Drive
Hatcher House – 320 Hatcher House	L.A. Miller Centre – 100 Forest Rd.
Bruneau Centre for Innovation and Research – 230 Elizabeth Ave	Bitters Pub & Restaurant – 216 Prince Philip Drive
Johnson Geo Centre – 175 Signal Hill Road	Quidi Vidi Brewery – 35 Barrows Road

## Monday, June 12<sup>th</sup> 2017

Location	Time	Topic & Title	Presenter/Lead
Health Sciences Centre MED 1M114	2:00-3:00 pm	<b>Committee Meeting with incoming SPRINT Mentors</b> <i>Rashmi Kothary, Lisa Osborne, Lara Pilutti</i>	Dr. Marcia Finlayson
Health Sciences Centre MED 1M109	3:00-3:50 pm	<b>Orientation Session for New SPRINTers</b> <i>Marc Charabati, Sarah Jean Donkers, Dylan Galloway, Marjan Gharagozloo, Elizabeth Gowing, Ben Ewanchuk, Megan Kirkland, Evelyn Peelen, Solmaz Setayeshgar</i>	Dr. Christina Wolfson
	3:50 – 4:00 pm	<b>Break</b>	
MED 1M109	4:00-5:30 pm	<b>endMS SPRINT:</b> Time for SPRINT teams to meet	Dr. Rashmi Kothary
MED 1M114			Dr. Lisa Osborne
MED 1M115			Prof. Lara Pilutti
MED 1M116			Dr. Ann Yeh
MED 1M117			Dr. Nader Ghasemlou
MED 1M118			Dr. Tania Bruno
<b>2017 endMS Summer School Begins</b>			
Macpherson College	5:45 pm	<i>A volunteer will depart from the Macpherson College residence lobby at 5:45 pm to guide anyone who wishes to walk over together to the Welcome Dinner.</i>	
Bitters Pub & Restaurant – 216 Prince Philip Drive	6:00-8:30 pm	<b>endMS Summer School Welcome Dinner</b> <ul style="list-style-type: none"> <li>• Registration</li> <li>• Reception/Networking</li> <li>• Welcome Dinner - *Cash Bar* <ul style="list-style-type: none"> <li>○ Opening welcome address</li> </ul> </li> </ul>	Summer School Hosts: Dr. Michelle Ploughman Dr. Craig Moore

<b>Tuesday, June 13<sup>th</sup> 2017</b>			
<b>Location</b>	<b>Time</b>	<b>Topic &amp; Title</b>	<b>Presenter/Lead</b>
Hatcher House Dining Hall	7:15-8:00 am	<b>Breakfast</b>	
<b>EVALUATION: Please collect an evaluation form as you enter. Hand in at the end of today's sessions. Thanks!</b>			
<b>Bruneau Centre</b> IIC-2001	8:15-8:20 am	<b>Welcome</b>	Dr. Mark Abrahams, Associate Vice-President (Research), Memorial University
<b>Bruneau Centre</b> IIC-2001	8:20-9:00 am	<b><i>How We Collaborate – The HITMS Project</i></b> We will discuss the framework of collaboration within the Health Research Innovation Team in Multiple Sclerosis (HITMS) project at Memorial University, including the integration of resources, data storage/analytics, clinical neurology, physical medicine rehabilitation, and neuroimmunology. We will also briefly discuss critical factors in building and sustaining a collaboration that works for all individuals involved, including setting achievable benchmarks, optimal structure, expectations, etc.	Dr. Michelle Ploughman Dr. Craig Moore
<b>Bruneau Centre</b> IIC-2001	9:00 -10:00 am	<b><i>A Brief History of MS</i></b> The presentation will review the steps that led to the definition of the disease, refinements in diagnosis and management, and social issues. <b>Pre-Session Background Reading (not mandatory):</b> <a href="#">Dr. Pryse-Phillips suggests reading through Chapter 1: The story of multiple sclerosis in <i>McAlpine's Multiple Sclerosis</i> (4<sup>th</sup> Edition), written by Compston et al.</a>	Dr. William Pryse-Phillips
<b>Bruneau Centre</b> Atrium	10:00-10:15 am	<b>Break</b>	
<b>Bruneau Centre</b> IIC-2001	10:15-11:15 am	<b><i>Telling the Story – The Art of Selling Your Science</i></b> A great idea is nothing without a great pitch. Communicating the story with intent is the key. This session will take you through the do's and don'ts of how to pitch strategically by challenging you to think differently about a presentation. Discussions will include: <ul style="list-style-type: none"> <li>• The message: what is THE intent?</li> <li>• The audience: what must they know?</li> <li>• The structure: how best to achieve the intent?</li> <li>• The presenters: how to communicate with conviction?</li> </ul>	Prof. Lynn Morrissey
<b>Bruneau Centre</b> IIC-2001	11:15-12:15 pm	<b><i>What do we need to create effective teams?</i></b> Far too frequently, organizations assemble teams by putting together the most technically competent individuals and hope that effective teamwork will naturally evolve. However, research has repeatedly demonstrated that without the appropriate organizational supports, composition of individuals, and	Dr. Alyson Byrne

		interpersonal components, even the most technically competent group of individuals will undoubtedly fail. This talk will emphasize the evidence-based management practices that have been established to support effective team dynamics. Using an experiential exercise, participants will have an opportunity to experience first-hand what the key requirements are for effective teamwork to have an opportunity to thrive.	
<b>Hatcher House</b> Dining Hall	12:15-1:15 pm	<b>Lunch</b>	
<b>Bruneau Centre</b> IIC-2001	1:15-2:15 pm	<p><b>3-Minute Thesis Coaching</b></p> <p>Participating in 3MT develops academic, presentation and research communication skills, while developing research candidates' ability to effectively explain their research in language appropriate to a non-specialist audience. Trainees will be dividing into 8 groups of approximately 5 individuals. Mentors will be available to help evaluate these presentations (along with the other trainees) and give feedback according to specific guidelines that will be provided. This competition will have different stages with the "winners" proceeding to a "semi-final" and "final" round.</p> <p><b>We encourage you to begin to develop your 3MT before you arrive.</b></p> <ul style="list-style-type: none"> <li>• Rules will be adapted from the 3MT website: (<a href="https://threeminutethesis.uq.edu.au/">https://threeminutethesis.uq.edu.au/</a>)</li> <li>• No slides, additional electronic media (e.g. sound and video files), additional props (e.g. costumes, musical instruments, laboratory equipment) are permitted.</li> <li>• Presentations are limited to three minutes maximum.</li> <li>• Presentations are to be spoken word (e.g. no poems, raps or songs).</li> </ul>	<p>Moderator: Dr. Michelle Ploughman</p> <p>Facilitators: Dr. Stephen Czarnuch Dr. Marcia Finlayson Dr. Nader Ghasemlou Dr. Rashmi Kothary Dr. Matthew Parsons Dr. Jackie Vanderluit Dr. Ann Yeh Emma Quinlan</p>
<b>Bruneau Centre</b> IIC-2001	2:15-3:00 pm	<p><b><i>Building Partnerships in MS Research</i></b></p> <p>During this 45-minute session, Marcia and Ann share how their partnership started, what each of them brings to the work they do together, and what they have each learned about building research partnerships over time. By reflecting on their collective experiences, they will highlight important issues that must be addressed in research partnerships, including managing money and authorship, recognizing and dealing with partnerships that are not working as expected, and moving from mentee to leader over time.</p> <p>At the end of this session, participants will be able to:</p> <ul style="list-style-type: none"> <li>• Give examples of how MS researchers from diverse disciplines connect and work together</li> <li>• Appreciate the different ways that MS researchers contribute to each other's research programs</li> <li>• Stay alert to and address issues that arise in research partnerships, based on the experiences of the speakers</li> </ul>	<p>Dr. Marcia Finlayson Dr. Ann Yeh</p>

<b>L.A. Miller Centre</b> Room 400		<b>Group “A” – Shuttle to L.A. Miller Centre</b> <b>Workshop on Gait analysis using walkway</b> <b>Workshop on Fitness test</b> <b>Workshop on Corticospinal excitability using TMS</b> The workshops will include: <ul style="list-style-type: none"> <li>• Transcranial magnetic stimulation to measure corticospinal excitability</li> <li>• Gait analysis using an instrumented walkway</li> <li>• Metabolic fitness testing</li> </ul>	Dr. Michelle Ploughman Beraki Abraha Arthur Chaves Liam Kelly
<b>Health Sciences Centre</b> Room 2808 Room 2819 Room 2828	3:00-5:30 pm	<b>Group “B”</b> <b>Workshop on Neuroexam</b> To demonstrate key components of a comprehensive neurological exam, including a particular focus on the necessary clinical skills that are needed to identify the symptoms MS and monitor disease progression. <b>Workshop on Cutting and Staining human brain tissue</b> Introduce and develop basic skills related tissue handling, processing, cutting, and staining, including additional histological skills related to assessing MS and brain pathology.	Dr. Craig Moore Dr. William Pryse-Phillips Dr. Jane Barron Iliana Dimitrova Corrine Mercer
<b>Macpherson College</b>	5:45 pm	<b>Shuttle bus to Networking Dinner departs at 5:45 pm</b> (meet at the front of the residence)	All participants
<b>Johnson Geo Centre – 175 Signal Hill Road</b>	6:00-8:00 pm	<b>Networking Dinner *Cash Bar*</b> <i>Shuttle bus to Team-Building Activity departs at 8:15 pm</i>	Sylvia Leonard, Interim CEO, MS Society of Canada
<b>Quidi Vidi Brewery – 35 Barrows Road</b>	8:30-10:00 pm	<b>Team-Building Activity - Tour of Quidi Vidi *Cash Bar*</b> <i>Shuttle bus back to Macpherson College Residence departs at 10:00 pm</i>	

<b>Wednesday, June 14th 2017</b>			
<b>Location</b>	<b>Time</b>	<b>Topic &amp; Title</b>	<b>Presenter/Lead</b>
<b>Hatcher House</b> Dining Hall	7:30-8:20 am	<b>Breakfast</b>	
<b>EVALUATION: Please collect an evaluation form as you enter. Hand in at the end of today’s sessions. Thanks!</b>			
<b>Bruneau Centre</b> IIC-2001	8:30-9:30 am	<b>Exercise in MS – It’s a Team Effort that Must Capitalize on Implementation Science</b> This talk will focus on the evidence for benefits of exercise in persons with MS. This talk will further identify a conundrum involving the strength of evidence for benefits, yet lack of participation in exercise in MS. The talk will then focus on knowledge translation, and provide a conceptual framework and driver diagrams for the patient-provider interaction as a major opportunity for promotion and maintenance of exercise in MS.	Prof. Robert Motl

<b>Bruneau Centre</b> IIC-2001	9:30-10:15 am	<p><b>MS Drug Updates</b></p> <p>Over the past decade, there have been several new disease-modifying therapies (DMTs) that been approved for use in multiple sclerosis (MS). With the increasing numbers of DMTs comes with challenges, including important clinical decision-making when it comes to deciding which medication is optimal for an individual patient or a specific patient population. Here we will discuss current DMTs used for treating MS, recent clinical trials, and the current/future challenges facing clinicians and patients.</p>	Dr. Mark Stefanelli
<b>Bruneau Centre</b> Atrium	10:15-10:30 am	<b>Break</b>	
<b>Bruneau Centre</b> IIC-2001	10:30-11:30 am	<p><b>SPRINT Team Presentations</b></p> <p><b><i>Multiple Sclerosis and the physical, cognitive and emotional concerns of persons living with high level disability—a scoping review.</i></b></p> <p><b>SPRINTers:</b> Stephanie Blandford, Samuel Jensen, Dr. José Wijnands</p> <p><b>SPRINT Mentor:</b> Dr. Tania Bruno</p> <p>Worldwide, the prevalence of Multiple Sclerosis (MS) is changing. In Canada, for reasons not fully understood, we are at an all-time prevalence high. In spite of increasingly more sophisticated methods for early detection and options for pharmacotherapeutic interventions to modify the disease, Multiple Sclerosis continues to pose challenges to our well-being in terms of symptom burden, functional independence and full social participation across the disease continuum. As more persons live with MS and accrue disease-related impairments and activity limitations, experience the effects of aging and develop other comorbidities, there develops an ever-increasing push to address their complex health needs to the fullest. However, to date, persons at the higher levels of the Expanded Disability Status Scale (of Kurtke) have been a relatively under-studied population. This scoping review aims to examine the (un)met needs of this population in the domains of the physical, cognitive and emotional and to highlight potential foci of future research that could enhance our ability to care for persons living with MS and high level disability. Ultimately, we hope that a better of understanding of this population might translate into improvements gained in health-related quality of life, disease coping, and better outcomes, overall.</p>	Moderator: Dr. Christina Wolfson

		<p><b><i>Contribution of circadian rhythms to psychosocial and physiological outcomes in Multiple Sclerosis</i></b>  <b>SPRINTers:</b> Elisea De Somma, Rajiv Jain, Dr. Kelvin Poon  <b>SPRINT Mentor:</b> Dr. Nader Ghasemlou</p> <p>There is mounting scientific evidence showing the importance of innate biological rhythms on disease onset and progression. Perhaps the most important of these is the circadian rhythm, a cycle of oscillations lasting approximately 24 hours. Recent evidence has shown that circadian rhythms are intrinsically linked to the immune system in a bidirectional fashion, and disruption of these cycles can contribute to changes in pathology and quality of life (i.e., fatigue, mood, and disability), particularly in diseases of the nervous and immune systems. We review the current preclinical and clinical literature to highlight interactions between circadian rhythms and the autoimmune disease Multiple Sclerosis. We highlight potential benefits of ‘chronotherapy’ (i.e., the temporal administration of immunomodulatory drugs), in an effort to increase treatment efficacy and reduce the negative side-effects that burden those suffering from the disease.</p>	
		<p><b><i>A Scoping Review of Modifiable risk factors in pediatric MS: building for the future</i></b>  <b>SPRINTers:</b> Prenitha Mercy Ignatius, Max Fiander, Julie Petrin  <b>SPRINT Mentor:</b> Dr. Ann Yeh</p> <p>Pediatric multiple sclerosis (MS) is observed in children (diagnosed prior to age 18) and comprises about 5% of the MS population. These children and adolescents with MS (caMS), and oftentimes their parents, are faced with making health-related and disease management choices on a daily basis. There is growing evidence that lifestyle modifications can impact the disease course of various autoimmune diseases, including adult-onset MS, and therefore caMS and their families need to be aware of the evidence-based literature in this area in order to make informed decisions about which lifestyle modifications to engage in. Presently, there are no reviews on the effect of modifiable lifestyle factors in the pediatric MS population. The aim of this project was to thus summarize the current scope of research on modifiable lifestyle factors and pediatric MS and discuss the putative mechanisms of each modifiable factor.</p>	
<p><b>Bruneau Centre</b> IIC-2001</p>	<p>11:30-12:30 pm</p>	<p><b>Speed Mentoring</b>  Trainees will be broken up into 8 groups of 5 individuals and circulate between mentors, where they will have the chance to ask questions about particular aspects of the mentors’ career. Mentors will be asked to choose a topic that they would feel comfortable discussing amongst the trainees. Examples could include: how to maintain a healthy work-home life balance, how to choose a productive laboratory for a PhD or Postdoc, how to search and/or apply for jobs, balancing teaching, research, and clinical responsibilities, experiences doing</p>	<p>Moderator: Dr. Craig Moore  Mentors: Dr. Stephen Czarnuch Dr. Marcia Finlayson Dr. Nader Ghasemlou Dr. Matthew Grimes Dr. Matthew Parsons</p>

		research outside of Canada, conflict resolution within and outside of the lab, etc. Groups will spend approximately 5-7 minutes with each mentor.	Dr. Ann Yeh Angela Dunn Luke Richard
<b>Hatcher House</b> Dining Hall	12:30-1:30 pm	<b>Lunch</b>	
<b>Bruneau Centre</b> IIC-2001	1:30-3:00 pm	<p><b>Small Group 3MT Competition</b> Trainees will present their 3MT presentations to their group. They will be judged and winners will advance to final day and round. <i>See the <a href="#">Homework</a> document for scoring criteria.</i></p>	<p>Moderator: Dr. Michelle Ploughman Facilitators: Dr. Stephen Czarnuch Dr. Marcia Finlayson Dr. Nader Ghasemlou Dr. Rashmi Kothary Dr. Matthew Parsons Dr. Jacqueline Vanderluit Dr. Ann Yeh Emma Quinlan</p>
<b>L.A. Miller Centre</b> Room 400	3:00-5:30 pm	<p><b>Group “B” – Shuttle to L.A. Miller Centre</b> <b>Workshop on Gait analysis using walkway</b> <b>Workshop on Fitness test</b> <b>Workshop on Corticospinal excitability using TMS</b> The workshops will include:</p> <ul style="list-style-type: none"> <li>• Transcranial magnetic stimulation to measure corticospinal excitability</li> <li>• Gait analysis using an instrumented walkway</li> <li>• Metabolic fitness testing</li> </ul>	<p>Dr. Michelle Ploughman Beraki Abraha Arthur Chaves Liam Kelly</p>
<b>Health Sciences Centre</b> Room 2808 Room 2819 Room 2828		<p><b>Group “A”</b> <b>Workshop on Neuroexam</b> To demonstrate key components of a comprehensive neurological exam, including a particular focus on the necessary clinical skills that are needed to identify the symptoms MS and monitor disease progression. <b>Workshop on Cutting and Staining human brain tissue</b> Introduce and develop basic skills related tissue handling, processing, cutting, and staining, including additional histological skills related to assessing MS and brain pathology.</p>	<p>Dr. Craig Moore Dr. William Pryse-Phillips Dr. Jane Barron Iliana Dimitrova Corrine Mercer</p>
	5:30 pm	<b>Free Evening</b>	

<b>Thursday, June 15th 2017</b>			
<b>Location</b>	<b>Time</b>	<b>Topic &amp; Title</b>	<b>Presenter/Lead</b>
Hatcher House Dining Hall	7:30-8:20 am	<b>Breakfast</b>	
<b>EVALUATION: Please collect an evaluation form as you enter. Hand in at the end of today's sessions. Thanks!</b>			
Bruneau Centre IIC-2001	8:30-9:30 am	<p><b><i>Building Collaborations</i></b></p> <p>In days gone by, major scientific discoveries were often made by people working in isolation. In more recent times, this is rarely the case. High quality scientific work is often reported in journal articles listing a large number of authors because in many cases it is a collaborative effort requiring expertise from many different fields. But forming collaborative groups and making them successful is not always easy. In this talk, I will discuss my own experiences of groups that have worked and those which haven't.</p>	Dr. David Owen
Bruneau Centre IIC-2001	9:30-10:45 am	<p><b><i>MS Patient Perspective</i></b></p> <p>In an interactive and small group setting, trainees will be given the opportunity to meet with people affected by MS and discuss their current research with them. Trainees should be prepared to engage in discussions with respect to the impact that their research will have on the daily lives of individuals and their families living with MS.</p>	Moderator: Dr. Michelle Ploughman
Bruneau Centre Atrium	10:45-11:00 am	<b>Break</b>	
Bruneau Centre IIC-2001	11:00-12:00 pm	<p><b><i>Partnering with Patients in Research</i></b></p> <p>The role of patients in research is changing from a passive one (patient is a subject) to an active one (patient is a partner). This session will help participants to understand why patient partnerships are important and will give them some ideas on how to best collaborate with patients in research. This session will also give participants a brief introduction to patient oriented research and the focus of funders of health research.</p> <p>By the end of this session participants should be able to:</p> <ul style="list-style-type: none"> <li>• Describe what patient engagement means</li> <li>• Describe the role of the Canadian Institutes of Health Research and other funders</li> <li>• Describe possible roles for patients in research</li> <li>• Describe different levels of engagement</li> <li>• Describe challenges and know where to go for support</li> </ul> <p><b>Pre-Session Background Reading (not mandatory):</b> Ms. Vat has provided some <a href="#">background information about SPOR and patient engagement</a>. Trainees may read this in advance or after the summer school.</p>	Eva Vat
Hatcher House Dining Hall	12:00-1:00 pm	<b>Lunch</b>	

Bruneau Centre IIC-2001	1:00-2:00 pm	<b>Final 3MT Competition</b> The 8 finalists will present and be scored by all participants.	Moderator: Dr. Michelle Ploughman
Bruneau Centre IIC-2001	2:00-2:45 pm	<b><i>National Research Platforms: Accessibility, benefits and challenges</i></b> Peer review funding agencies and journals in Canada and around the world advocate (and some require) that researchers place their research data in a public database as soon as is feasible. The timeline sometimes relates to a timeframe after publication of results but for research data platforms, this may be prior to publication. Although this sounds like a win-win situation for science, there are both inherent challenges and inherent benefits for the data creators and for the data users. In this presentation I will discuss existing, and proposed, Canadian research data platforms and highlight the benefits to trainees.	Dr. Christina Wolfson
Bruneau Centre IIC-2001	2:45-3:00 pm	<b>3MT Competition Prize Winner</b> <b>Summer School Wrap-Up</b>	Dr. Michelle Ploughman Dr. Craig Moore Dr. Christina Wolfson