



endMS National Training Program SPRINT CV

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As of August 2023

Christina Wolfson, PhD
Director, endMS National Training Program

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Co-Director, endMS National Training Program

SPRINT Interdisciplinary Learning Projects and Team Mentored Learning

A goal of the interdisciplinary learning projects is to provide trainees with the unique opportunity to expand their areas of research interest in a structured way under the supervision of a mentor and in collaboration with one or more co-trainees from different disciplines. Knowledge dissemination from the projects include the development and distribution of an information brochure for people living with MS and researchers; an article for publication, preparation of an educational newsletter or presentation for people living with MS, etc.

Based on the information provided in the application, teams of three trainees from different disciplines are partnered with a SPRINT mentor (established MS researcher) by the National Training Program and SPRINT Committee. The SPRINT mentors develop and guide the interdisciplinary project. The SPRINT trainee teams work on the project with their SPRINT mentor during the period between the two endMS Summer Schools. The project should require approximately 8 hours of work per month and is developed, supervised, and assessed by the SPRINT mentor.

Below is a compilation of the SPRINT team outcomes as of August 2023:

ORAL PRESENTATIONS

SPRINTers	Presentation	Mentor
Charity Evans , University of British Columbia Michael Keough , University of Calgary Carolyn Joanne (CJ) MacMillan , Dalhousie University	2012 Summer School Presentation "Demystifying the mechanism of action of a new immunomodulatory therapy"	Nathalie Arbour , Université de Montréal
Yohannes Haile , University of Alberta Heather Hanwell , University of Toronto	2012 Summer School Presentation "What worsens or improves MS? From blogs to biology."	Helen Tremlett , University of British Columbia
Lindsay Berrigan , Dalhousie University Kaarina Kowalec , University of British Columbia	2013 Summer School Presentation "Pain in MS-A project in translating knowledge from researchers to patients."	Bradley Kerr , University of Alberta
Lindsay Berrigan , Dalhousie University Kaarina Kowalec , University of British Columbia	2013 Edmonton MS Clinic "Pain in MS-A project in translating knowledge from researchers to patients."	Bradley Kerr , University of Alberta
Sandra Magalhaes , McGill University, Craig S. Moore , McGill University Jean-François Richard , Université Laval	2013 Summer School Presentation "Depression and Multiple Sclerosis, A Review"	Anthony Feinstein , University of Toronto
Nadine Akbar , University of Toronto Karen Turpin , University of Alberta	2013 endMS Summer School Presentation "Development of an Interactive Fatigue Education Resource for Persons with MS"	Marcia Finlayson , Queen's University
Sandra Meyers , University of British Columbia Julia O'Mahony , University of Toronto	2014 endMS Summer School Presentation "EAE for Dummies: Bridging the gap between animal and human researchers"	Steven Kerfoot , Western University
Eva Gunde , Dalhousie University Hyunwoo Lee , McGill University	2014 endMS Summer School Presentation "Biology of sex-based differences in multiple	Shannon Dunn , University of Toronto

	sclerosis incidence and progression.”	
Marc-André Bellavance , Université Laval Neda Razaz , University of British Columbia Jordan Warford , Dalhousie University	2014 endMS Summer School Presentation “Lost in translation: The journey from a transcranial magnetic stimulation laboratory to patient friendly newsletter.”	Lisa Koski , McGill University
Curtis Benson , University of Alberta Camille Juzwik , McGill University Jason Plemel , University of Calgary	2014 endMS Summer School Presentation “The Effects of Anti-Oxidant Supplements on Progression of MS: A Systematic Review of Human and Animal Studies for Clinicians and Patients.”	Michelle Ploughman , Memorial University
J. Keiko McCreary , University of Lethbridge James Rogers , University of Calgary	2015 endMS Summer School Presentation "Upper limb intention tremor in multiple sclerosis: A review of the literature"	Susan Forwell , University of British Columbia
J. Keiko McCreary , University of Lethbridge James Rogers , University of Calgary	2015 endMS Summer School Presentation "Upper limb intention tremor in multiple sclerosis: A review of the literature"	Susan Forwell , University of British Columbia
Kyla McKay , University of British Columbia Simon Zhornitsky , University of Calgary	2015 endMS Summer School Presentation “Cholesterol and markers of cholesterol turnover in multiple sclerosis: relationship with disease outcomes”	Manu Rangachari , Université Laval
Afolasade Farotimi , Queen's University Coral-Ann Lewis , University of British Columbia Alexandre Paré , Université Laval	2015 endMS Summer School Presentation "The use of corticosteroids in multiple sclerosis"	Sarah Morrow , Western University
Hilda De Jong , University of British Columbia Erin MacMillan , University of British Columbia Diane Nakamura , McGill University	2015 endMS Summer School Presentation "MS Moves: Bringing Exercise Research Findings into the MS Clinic."	Amy Latimer-Cheung , Queen's University
Andrew Caprariello , University of Calgary Samantha Kornfeld , University of Ottawa Katerina Othonos , University of British Columbia	2016 endMS Summer School Presentation “A literature review on the relationship between physical activity and fatigue in MS.”	Audrey Hicks , McMaster University
Karissa Canning , McMaster University Citlali Marquez , University of British Columbia Erin Stephenson , University of Calgary	2016 endMS Summer School Presentation "Coping in MS: A scoping review."	Linda Carroll , University of Alberta
Courtney Casserly , University of Toronto Julia Nantes , McGill University	2016 endMS Summer School Presentation “A review paper on the role of neutrophils”	Luc Vallières , Université Laval
Maximilian Fiander , Dalhousie University Prenitha Mercy Ignatius , Université Laval Julie Petrin , Queen's University	2017 endMS Summer School Presentation “A Scoping Review of Modifiable risk factors in pediatric MS: building for the future”	Ann Yeh , University of Toronto
Stephanie Blandford , Memorial University Samuel Jensen , University of Calgary Jose Wijnands , University of British Columbia	2017 endMS Summer School Presentation “A scoping review of what the needs, issues and concerns are of patients who have very high levels of disabilities (i.e. EDSS above 7).”	Tania Bruno , University of Toronto
Dylan Galloway , Memorial University Elizabeth Gowing , Université de Montréal Solmaz Setayeshgar , University of British Columbia	2017 endMS Summer School Presentation “A peer-reviewed systematic review of the inhibitory milieu at the MS lesion site.”	Rashmi Kothary , University of Ottawa

ORAL PRESENTATIONS (cont'd)

SPRINTers	Presentation	Mentor
Elisea De Somma , York University Rajiv Jain , Western University Kelvin Poon , University of Calgary	2017 endMS Summer School Presentation "Contribution of circadian rhythms to psychosocial and physiological outcomes in Multiple Sclerosis"	Nader Ghasemlou , Queen's University
Nadine Akbar , University of Toronto (N., Clement, M., Hazlewood, S., Pollock, G., Canning, K., Latimer-Cheung, A.E., Hicks, A.,)	7th International Symposium on Gait & Balance in Multiple Sclerosis, Portland, Oregon, Sept 2017. "Positive perceived outcomes of persons with MS from following the Canadian Physical Activity Guidelines for Adults with MS: A qualitative study"	Marcia Finlayson , Queen's University
Marc Charabati , Université de Montréal Sarah Jean Donkers , University of Saskatchewan Megan Kirkland , Memorial University	2018 endMS Summer School Presentation "Digging up new approaches in the management of MS"	Lisa Osborne , University of British Columbia
Dylan Galloway , Memorial University Elizabeth Gowing , Université de Montréal Solmaz Setayeshgar , University of British Columbia	2018 endMS Summer School Presentation "Inhibitory Milieu at the Multiple Sclerosis Lesion Site"	Rashmi Kothary , University of Ottawa
Ben Ewanchuk , University of Calgary Evelyn Peelen , Université de Montréal Marjan Gharagozloo , University of Sherbrooke	2018 endMS Summer School Presentation "Exploring the role of physical activity and exercise for managing vascular comorbidities in people with multiple sclerosis."	Lara Pilutti , University of Ottawa
Rhiannon Campden , University of Calgary Thomas Edwards , University of Ottawa Yodit Tesfagiorgis , Western University	2019 endMS Summer School Presentation "The Relationship Between Quality of Life and Cognition in MS: a Systematic Review."	Lindsay Berrigan , St . Francis Xavier University
Negar Farzam-Kia , Université de Montréal Chantel Mayo , University of Victoria	2019 endMS Summer School Presentation "Identifying the Barriers and Facilitators to Health Service Accessibility Encountered by Individuals with MS"	Setareh Ghahari , Queen's University
Ivy Xiong , McMaster University Kedar Mate , McGill University Angela Wang , University of Toronto	2019 endMS Summer School Presentation "Factors Influencing the Prescription Patterns of Disease-Modifying Drugs in MS."	Craig Moore , Memorial University
Jessica Allanach , University of British Columbia John Farrell , University of Ottawa Miceline Mésidor , Université de Montréal	2020 endMS Summer School Presentation "Current Status of Neuroprotective and Regenerative Strategies for Myelin Repair in Multiple Sclerosis: a Systematic Review"	Soheila Karimi , University of Manitoba
Nikki Ow , McGill University Karin Rustad , University of Saskatchewan	2020 endMS Summer School Presentation "A review of the evidence that mitochondrial dysfunction drives MS disease progression and propose new approaches for the treatment of progressive MS based on the targeting of various aspects of mitochondrial function with natural metabolic activators."	George Robertson , Dalhousie University

ORAL PRESENTATIONS (cont'd)

SPRINTers	Presentation	Mentor
Arthur Chaves , Memorial University Hélène Jamann , Université de Montréal Camille Simard , Université de Sherbrooke	2020 endMS Summer School Presentation “A literature review on geographical variations in adherence to disease modifying therapies for MS.”	Charity Evans , University of Saskatchewan
Monique Almeida , University of Alberta, Maria-Elizabeth Baeva , University of British Columbia Brian M Lozinski , University of Calgary Simon Thebault , University of Ottawa	2021 endMS Summer School Presentation “ASK about physical activity in MS: a toolkit for MS clinics”	Sarah Dankers , University of Saskatchewan
Emily Kamma , University of British Columbia Wendy Lasisi , Memorial University Cole Libner , University of Saskatchewan Huah Shin Ng , University of British Columbia	2021 endMS Summer School Presentation “CNS macrophages in progressive MS: characteristics, neurodegeneration, and therapeutics”	Jason Plemel , University of Alberta
Nima Alaeiikhchi , International Collaboration on Repair Discoveries /UBC Annie Pu , University of Toronto Sameera Zia , University of Alberta	2022 endMS Summer School Presentation “Correlation between Multiple Sclerosis and immunity/immune responses against paramyxoviridae”	Josef Buttigieg , University of Regina
Charbel Baaklini , University of Alberta Nataliya Tokarska , University of Saskatchewan Isabelle Tottenham , University of Calgary	2022 endMS Summer School Presentation “Is brain aging accelerated in individuals with multiple sclerosis?”	Jodie Gawryluk , University of Victoria
Alexandra Jackson , Queen’s University Zitong Wang , University of Alberta Bettina Zierfuss , Université de Montréal	2022 endMS Summer School Presentation “Iron in Multiple Sclerosis – Neuropathology, Immunology, and Real-World Considerations”	V. Wee Yong , University of Calgary
Adam Groh , McGill University Fiona Tea , Université de Montréal Colleen Lacey , University of Victoria	2023 endMS Summer School Presentation “To what extent do trials of digital health technologies for persons with MS consider usability principles during development and evaluation?”	Afolasade Fakolade , Queen’s University
Syamala Buragadda , Memorial University Karine Thai , Université de Montréal Gracious Kasheke , Dalhousie University	2023 endMS Summer School Presentation “Moving Towards Better Outcomes: The Neuroprotective Role of Exercise in Multiple Sclerosis”	Timothy Kennedy , McGill University
Dr. Haritha Desu , Université de Montréal Dr. Katherine Sawicka , The Hospital for Sick Children Emily Wuerch , University of Calgary	2023 endMS Summer School Presentation “Investigating differences in fluid biomarkers between progressive MS subtypes”	Jacqueline Quandt , University of British Columbia

POSTER PRESENTATIONS

SPRINTers	Presentation	Mentor
Karen Turpin , University of Alberta Nadine Akbar , University of Toronto	Poster Presentation at ACTRIMS-CMSC 2013 Meeting in Orlando, Florida: “Development of An Interactive Fatigue Education Resource for Persons with MS.”	Marcia Finlayson , Queen’s University
Curtis Benson , University of Alberta Camille Juzwik , McGill University Jason Plemel , University of Calgary	Poster Presentation at ACTRIMS-CMSC 2014 Meeting in Dallas, Texas, which won the patient information category. “The Effects of Anti-Oxidant Supplements on Progression of MS: A Systematic Review of Human and Animal Studies for Clinicians and Patients.”	Michelle Ploughman , Memorial University
Karen Turpin , University of Alberta Nadine Akbar , University of Toronto	Poster Presentation at ACTRIMS-CMSC 2016 Meeting in New Orleans, Louisiana: “Efficacy of an interactive fatigue self-management tool for persons with MS.”	Marcia Finlayson , Queen’s University
Monique Almeida , University of Alberta Maria-Elizabeth Baeva , University of British Columbia Brian M Lozinski , University of Calgary Simon Thebault , University of Ottawa	Poster Presentation at 2021 ECTRIMS "Promoting physical activity in patients with MS: A needs assessment survey of Canadian Neurologists."	Sarah Donkers , University of Saskatchewan
Adam Groh , McGill University Fiona Tea , Université de Montréal Colleen Lacey , University of Victoria	Poster Presentation at 2023 CMSC Meeting in Aurora, Colorado “To What Extent Do Studies of Digital Health Technologies for Persons With MS Consider Usability Principles During Development and Evaluation?”	Afolasade Fakolade , Queen’s University

Other Outcomes

SPRINTers	Outcome	Mentor
Curtis Benson , University of Alberta Camille Juzwik , McGill University Jason Plemel , University of Calgary	2013 - An article written by Memorial University on the SPRINT team project meeting held at the University. https://www.med.mun.ca/Medicine/CommunicationsNews/NewsMedicine/November-2013/SPRINT-Program-offers-opportunities-for-translatio.aspx	Michelle Ploughman , Memorial University
Marc-André Bellavance , Université Laval Neda Razaz , University of British Columbia Jordan Warford , Dalhousie University	2014 - Newsletter for Study Participants (Developing a participant newsletter summarizing neuroimaging and transcranial magnetic stimulation methods being used in an ongoing study on MS.)	Lisa Koski , McGill University
Negar Farzam-kia , Université de Montréal Hanwen Liu , University of British Columbia Chantel Mayo , University of Victoria	This work was highlighted for continuing education credits at the Consortium of MS Clinics: Identifying the Barriers and Facilitators to Health Service Accessibility Encountered by Individuals with MS https://www.highmarksce.com/mscare/index.cfm?do=ev.viewEnduring&attendeelD=-1&eventID=3061	Setareh Ghahari , Queen’s University

ABSTRACTS

SPRINTers are in bold. *Mentors are in italics*

Turpin KVL, Akbar N, Finlayson, M. "Development of An Interactive Fatigue Education Resource for Persons with MS." *International Journal of MS Care.* 2013;15(suppl 3):132

Turpin K, Petrin J, Akbar N, Smyth P, Finlayson M. "An interactive, self-guided fatigue management education resource: changing knowledge, expectations and behaviours." *Multiple Sclerosis Journal,* 2015;21(4): 507.

Turpin KVL, Akbar N, Petrin J, Smyth J, & Finlayson, M. "The interactive, fatigue self-management resource: The road from development to testing to hope for a potential new fatigue management tool." *International Journal of MS Care,* 2016;18 (Supplement 1), p.2.

PUBLICATIONS - Papers in peer reviewed journals.

Metrics were obtained in April 2022. Citation counts were obtained through searches of Web of Science and Journal webpages.

SPRINTers are in bold. *Mentors are in italics*

Feinstein A, Magalhaes S, Richard JF, Audet B, Moore C. "The link between multiple sclerosis and depression." *Nat Rev Neurology.* 2014;10(9):507-17.

<https://www.nature.com/articles/nrneurol.2014.139>

Impact factor: 42.937. Citations: 245. Altmetrics: 28.

Dunn SE, Lee H, Gunde E. "Sex-Based Differences in Multiple Sclerosis (Part I): Biology of Disease Incidence." *Curr Top Behav Neurosci.* 2015;26:29-56. [DOI 10.1007/7854_2015_370](https://doi.org/10.1007/7854_2015_370)

Impact factor: 3.38. Citations: 27. Altmetrics: 1.

Plemel JR, Juzwik CA, Benson CA, Monks M, Harris C, Ploughman M. "Over-the-counter anti-oxidant therapies for use in multiple sclerosis: A systematic review." *Mult Scler.* 2015;21(12):1485-95. [DOI: 10.1177/1352458515601513](https://doi.org/10.1177/1352458515601513)

Impact factor: 6.312. Citations: 26. Altmetrics: 17.

Caprariello AV, Kornfeld SF, Othonos KM, Hicks A. "Exercise to Manage MS Fatigue: Counterintuitive Yet Effective" *Critical Reviews™ in Physical and Rehabilitation Medicine.* [27\(2-4\): 259-274 \(2015\) DOI: 10.1615/CritRevPhysRehabilMed.2016017097](https://doi.org/10.1615/CritRevPhysRehabilMed.2016017097)

Impact factor: SJR 0.121 SNIP 0.228. Citations: 0.5. Altmetrics: 0.

Zhornitsky S, McKay KA, Metz LM, Teunissen CE, Rangachari M. "Cholesterol and markers of cholesterol turnover in multiple sclerosis: relationship with disease outcomes." *Mult Scler Relat Disord.* 2016 ;5:53-65. <https://doi.org/10.1016/J.MSARD.2015.10.005>

Impact factor: 4.339. Citations: 51. Altmetrics: 2.

Casserly CS, Nantes JC, Whittaker Hawkins RF, Vallières L. “Neutrophil perversion in demyelinating autoimmune diseases: Mechanisms to medicine.” *Autoimmun Rev.* 2017;16(3):294-307. <https://doi.org/10.1016/J.AUTREV.2017.01.013>

Impact factor: 9.754. Citations: 27. Altmetrics: 1.

McCreary JK, Rogers JA, Forwell SJ. “Upper Limb Intention Tremor in Multiple Sclerosis: An Evidence-Based Review of Assessment and Treatment.” *Int. J. MS Care.* 2018; 20(5): 211-223. DOI: 10.7224/1537-2073.2017-024 <https://doi.org/10.7224/1537-2073.2017-024>

Impact factor: 1.924. Citations: 6. Altmetrics: 8.

Pétrin J, Akbar N, Turpin K, Smyth P, Finlayson M. “The Experience of Persons With MS Using MS INFoRm: An Interactive Fatigue Management Resource.” *Qual Health Res.* 2018;28(5):778-788 DOI: [10.1177/1049732317753584](https://doi.org/10.1177/1049732317753584)

Impact factor: 3.277. Citations: 17 Altmetrics: 6

Akbar N, Turpin K, Petrin J, Smyth P, Finlayson M. “A pilot mixed-methods evaluation of MS INFoRm: a self-directed fatigue management resource for individuals with MS.” *Int J Rehabil Res.* 2018;41(2):114-121. doi: [10.1097/MRR.0000000000000271](https://doi.org/10.1097/MRR.0000000000000271)

Impact Factor: 1.479. Citations: 11 Altmetrics: 55

Pétrin J, Fiander M, Doss PMIA, Yeh EA. “A Scoping Review of Modifiable Risk Factors in Pediatric Onset Multiple Sclerosis: Building for the Future.” *Children (Basel).* 2018 26;5(11). pii: E146. (*Children.* 2018; 5 (11) 146. doi:[10.3390/children5110146](https://doi.org/10.3390/children5110146))

Impact factor: 2.863. Citations: 4. Altmetrics: 5.

De Somma E, Jain RW, Poon KWC, Tresidder KA, Segal JP, Ghasemlou N. “Chronobiological regulation of psychosocial and physiological outcomes in multiple sclerosis.” *Neurosci Biobehav Rev.* 2018; 88: 73-83. doi: 10.1016/j.neubiorev.2018.03.011

<https://doi.org/10.1016/J.NEUBIOREV.2018.03.011>

Impact factor: 8.989. Citations: 3. Altmetrics: 4.

Ewanchuk BW, Gharagozloo M, Peelen E, Pilutti LA. “Exploring the role of physical activity and exercise for managing vascular comorbidities in people with multiple sclerosis: A scoping review.” *Mult Scler Relat Disord.* 2018; 26:19-32. (DOI: 10.1016/j.msard.2018.08.022)

<https://doi.org/10.1016/J.MSARD.2018.08.022>

Impact factor: 6.312. Citations: 2. Altmetrics: 7.

Finlayson, M., Akbar, N., Turpin, K., & Smyth, P. (2019). “A multi-site, randomized controlled trial of MS Inform, a fatigue self-management website for persons with multiple sclerosis: Rationale and study protocol.” *BMC Neurology*, 19(1).

<https://doi.org/10.1186/s12883-019-1367-6>

Impact factor: 2.474. Citation: 2. Altmetrics: 1.

DA Galloway, E Gowing, S Setayeshgar, R Kothary. “Inhibitory milieu at the multiple sclerosis lesion site and the challenges for remyelination.” *GLIA* 2019;1-19. [DOI: 10.1002/glia.23711](https://doi.org/10.1002/glia.23711)
Impact factor: 7.452. Citations: 10. Altmetrics: 3.

M Charabati, S J Donkers, MC Kirkland, LC Osborne: “A critical analysis of helminth immunotherapy in multiple sclerosis.” *Multiple Sclerosis Journal* 2020;26(12);1448-1458.
[doi: 10.1177/1352458519899040](https://doi.org/10.1177/1352458519899040)
Impact factor: 6.312. Citations: 10. Altmetrics: 16.

Allanach, J. R., Farrell, J. W., Mésidor, M., & Karimi-Abdolrezaee, S. (2021). “Current status of neuroprotective and neuroregenerative strategies in multiple sclerosis: A systematic review.” *Multiple Sclerosis Journal*, 28(1), 29–48. <https://doi.org/10.1177/13524585211008760>
Impact factor: 6.312. Citations: 11. Altmetrics: 8.

Akbar N, & Finlayson M. “A mixed-methods study of cognitive performance in persons with multiple sclerosis: Association between neuropsychological test performance and interviews about daily cognitive functioning.” *Multiple sclerosis and related disorders*, 2021;52, 102911.
<https://doi.org/10.1016/j.msard.2021.102911>
Impact factor: 4.339. Citation: 0. Altmetrics: 15

CD Mayo; N Farzam-kia; S Ghahari. “Identifying Barriers to and Facilitators of Health Service Access Encountered by Individuals with Multiple Sclerosis.” *Int J MS Care* (2021) 23 (1): 37–44
<https://doi.org/10.7224/1537-2073.2020-026>
Impact factor: 1.924 Citation: 0. Altmetrics: 7.

Kamma E, Lasisi W, Libner C, Ng HS, Plemel JR (2022) “Central nervous system macrophages in progressive multiple sclerosis: relationship to neurodegeneration and therapeutics.” *J Neuroinflammation*. (2022) Feb 10 (1):45 (PMID 35144628).
<https://doi.org/10.1186/s12974-022-02408-y>
Impact factor: 8.322. Citation: 0. Altmetrics: 19.

Bettina Zierfuss, Zitong Wang, Alexandra N. Jackson, Dorsa Moezzi, V . Wee Yong “Iron in multiple sclerosis – Neuropathology, immunology, and real-world considerations” *Multiple sclerosis and related disorders*, (2023) Aug 8 <https://doi.org/10.1016/j.msard.2023.104934>

Submitted Manuscripts

Thebault S, Baeva M, Almeida M, Lozinski B, Donkers SJ. “Clinical Application of Exercise in MS: Supporting Neurologists.” 2022 (submitted)

GRANTS

Nov 2013-Oct 2014. "The utility of an interactive fatigue education resource for persons with MS." Foundation of the Consortium of Multiple Sclerosis Centres. \$40,000 USD.

PI: *M. Finlayson*. Co-investigators: **N. Akbar, K. Turpin**

April 2017-March 2020 (NCE to June 2021) "A multisite randomized controlled trial of MS INFoRM: An interactive fatigue management resource for persons" (EGID 2973). MS Society of Canada. \$268,789.00 (CDN).

PI: *M. Finlayson*. Co-investigators: **N. Akbar, K. Turpin**, P. Smyth. Collaborator: S. Jarvis.