

SPOTLIGHT
ON
THE FUTURE

“Teamwork is not a game for the selfish. It is for those with the mindset that a win for one is a win for all.”

— MICHAEL BASSEY JOHNSON

Welcome to our 13th edition!

We are thrilled to present the 13th edition of the endMS National Training Program's **Spotlight on the Future** newsletter. Within these pages, you will find the profiles of our 13th graduating group of SPRINTers and their mentors, a welcome message from next year's hosts, as well as updates from our alumni.

We extend our heartfelt gratitude to the University of Manitoba and Manitoba Multiple Sclerosis Research Centre (MMSRC), and to Dr. Soheila Karimi and Dr. Chase Figley for hosting this year's endMS Summer School. We also thank our 2023-2024 SPRINT mentors, Dr. Kaarina Kowalec (University of Manitoba), Dr. Hedwich F. Kuipers (University of Calgary) and Dr. Jordan Warford (Government of Nova Scotia's Department of Health and Wellness).

This year's endMS Summer School was held in Winnipeg, Manitoba, at the University of Manitoba and MMSRC between June 10-13, 2024. Summer School participants were treated to presentations that enhanced their knowledge of novel MS research and work related to **MS Pathogenesis, Prognosis, and Repair**.

The 2024 endMS Summer School welcomed 39 graduate students, post-doctoral and clinical fellows. Attendees benefitted from the expertise of the MMSRC's wide scope of research groups and close ties to both the Rady Faculty of Health Sciences at the University of Manitoba and the MS Clinic within the Health Sciences Centre in Winnipeg, (Manitoba's largest hospital).

During full days of intensive learning, participants attended sessions on a variety of fascinating topics, including: pathogenesis and disease mechanisms, advanced genomics and bioinformatics, diet and the microbiome, structural and functional neuroimaging biomarkers, diagnosis and management of cognition, anxiety and depression, treatment of MS and exacerbating comorbidities, and therapeutic approaches for white matter repair and regeneration.

The exciting program included plenary sessions on the latest advances in MS research and clinical care, a session on equity, diversity and inclusion, career development workshops focusing on opportunities and pathways both within and beyond academia, and hands-on small group workshops. We were fortunate to welcome individuals living with MS to various sessions throughout the week. For instance, participants had the opportunity to interact with and learn from people living with MS during a "Lived Experience Panel".

This year, 9 new SPRINTers were welcomed to the program. (For the complete list of current SPRINTers, mentors and their profiles, please see page 5.)

On June 11th, our graduating SPRINTers presented their thought provoking and innovative interdisciplinary team projects:

- 1) **A website-based informational tool for people with multiple sclerosis on the therapeutic considerations and research behind b-cell therapies.**
- 2) **A scoping review of comorbidity etiology in multiple sclerosis.**
- 3) **Breaking the bench-to-bedside barrier in multiple sclerosis — perspectives revealing from both worlds.**

From the feedback received, aspects of this year's Summer School that were most appreciated by trainees, included: the research presented, the interactive workshops and the opportunities to network and to interact with people with lived experience.

Summer School was an enriching and valuable experience for all participants, thanks to the commitment of the training program members, and the dedication, interest, and enthusiasm of everyone involved. The seamless coordination of event planning and logistics, coupled with the efforts of the volunteers, resulted in this year's Summer School's outstanding success.

We believe our trainees, mentors, and committee members benefit by learning from people who are living with MS. That is why last year, we engaged PwMS to provide feedback on the interdisciplinary research project summaries of our 2022/2023 graduating SPRINT teams. This project was initiated to ensure that the summaries were accessible for everyone, regardless of scientific background. These summaries can be viewed on our website.

We sincerely thank all the committee members, faculty, presenters, facilitators, panel members, organizers and those affected with MS who generously gave of their time and expertise, to ensure that the endMS National Training Program continues to engage new generations of MS researchers.

We are excited about the future, and are looking forward to learning and working together to expand the community of trainee researchers. To that end, the upcoming 2025 endMS Summer School, will be held June 16-19, 2025 in Edmonton, Alberta.

Additional information about the application process will be available in December. (To read a message from next year's Summer School hosts, please see page 11.)

It is with great pride that we bid both new and graduating SPRINTers continued success in their future endeavors. (To read more about some of our SPRINT alumni, please turn to page 18.)

In closing, we wish our current SPRINTers and mentors a year of rewarding collaborations, enlightening research and prolific discovery. We look forward to seeing you in June 2025!

DR. CHRISTINA WOLFSON
DIRECTOR, NATIONAL TRAINING PROGRAM

ANIK SCHOENFELDT
MANAGER, NATIONAL TRAINING PROGRAM



The 2023-2024 SPRINTers and Mentors

OUR SPRINTers:

Rochelle Benoit
Katherine Cardwell
Mona Hejazi
Dr. Leah Hohman
Megan Krysak
Ateyeh Soroush
Risavarshni Thevakumaran
Darrin Wijeyaratnam
Kaihim Wong

AND OUR MENTORS:

Dr. Kaarina Kowalec
Dr. Hedwich Kuipers
Dr. Jordan Warford

2023-2024 Sprinters & Mentors

Rochelle Benoit was born in Port au Port East, Newfoundland, and currently resides in St. John's, Newfoundland. She obtained her BSc in cell and molecular biology from Memorial University of Newfoundland, where, after beginning her MSc, she transitioned directly into the PhD program. She is now pursuing a PhD in medicine, immunology and infectious diseases.

Explaining why she has chosen to study MS, Rochelle says, "Given that I am a female in my 20s, and MS presents itself commonly in women of my age, I feel a more direct connection to those living with MS. My desire to study MS as a lifelong career increased after completing my first endMS Summer School."

Rochelle recalls a "lived experience" panel during Summer School, when a 23-year-old female shared how she had been diagnosed with MS after having noticed a decline in her athletic performance.

"At that time, I was 22 and played volleyball and softball, and in that instance, realized it could very well be me who had MS," Rochelle remarks.



Rochelle Benoit

Rochelle cites her supervisor Dr. Craig Moore, as a mentor of note who helped further her education and career aspirations within the field of MS.

Now devoting herself to research in the hopes of ensuring a better quality of life for those with MS, Rochelle is currently working on investigating the effects of Bruton tyrosine kinase inhibitors on myeloid cells in MS populations.

"These kinase inhibitors are being utilized in clinical trials as immunomodulators," she explains, adding that this research will help further elucidate the impacts on the immune cells of those with MS.

When asked if she thinks a cure for MS will be found in her lifetime, Rochelle

says, "I'm unsure if cure is the right term. Reversing neurodegeneration would be amazing, not only for MS but for many other neurological disorders. I believe that to reverse neurodegeneration may be out of scope for my lifetime, however I do believe that there will be better medication regimens to make treatment less invasive and risky." Rochelle hastens to mention that biomarkers will also aid in early detection, which will in turn limit the severity of MS progression.

When discussing Summer School and SPRINT, Rochelle says she would recommend both to "anyone who has an interest in MS, and especially to those who are on the fence about what they wish to do with their research centered futures."

Rochelle's own experience with SPRINT helped her expand her network and exposed her to gaps in knowledge outside her usual scope of research.

"Being in SPRINT has allowed me to broaden my scope of expertise in subfields I had no previous exposure to," she says. "It has inspired me

to continue to work collaboratively with peers and colleagues, as these relationships can last a lifetime."

Rochelle recalls that she has always wanted to work in medicine. Reflecting upon her teenage years, she says, "All through high school I knew I would work in medicine, but at that time, I believed I would work as a paediatrician."

Now, her long-term career goal is to become a Principal Investigator and run her own MS research program.

When not researching, Rochelle spends time with her 2-year-old Golden doodle, Ollie, who keeps her "incredibly busy". Rochelle also kick-boxes and plays softball and volleyball. She admits she is "not very good at relaxing, so physical activity is what keeps me balanced with work-related stress!"

“For the duration of my academic career, I had assumed I would always pursue MS research, but after Summer School and SPRINT participation, there is no doubt I will continue in MS research.”

Originally from Toronto, Ontario, Katherine Cardwell moved to Ottawa, where she is a student at the University of Ottawa. After graduating with an honour's BHSoc (with French immersion), Katherine began her MSc in interdisciplinary health sciences prior to fast-tracking to the population health PhD program.

Katherine's first exposure to the field of MS was through her volunteer work at a local rehabilitation program. Since then, Katherine says she's come to know many people with MS, both in research settings and through volunteering for events, including: MS Walk and MS Bike.

From those experiences, Katherine says, "One thing I've learned is how diverse the lived experience of MS can be, and how there are constantly new challenges to overcome."

Inspired by the unique "energy and excitement in the MS research space," Katherine is currently focused on a social network analysis of MS care partners called SNAP-MS.

"We are surveying and interviewing Canadian MS care partners to better

understand which resources they use and under what circumstances. We hope the findings will help us develop better support for care partners and better advocate for their needs when it comes to resource allocation and policy," she explains.

This is the first study that Katherine has developed herself from the ground up. She admits that seeing it all come together is "very exciting."

Katherine is very thankful to her supervisor, Dr. Lara Pilutti, for having encouraged her to pursue caregiving research in MS. She also mentions that Dr. Afolasade Fakolade has been an essential mentor, and a continual source of guidance and support.

When elaborating upon the challenges in her field, Katherine reveals that it can be difficult to find an audience and collaborators for her research.

"At every MS conference I have been to, I have presented the only caregiver focused poster and often have to spend

a lot of effort justifying how my funding application or publication is relevant to MS specific audiences," she says.

Katherine believes those challenges have made her more confident in presenting her research and in justifying its importance. However, some of that much needed confidence may have also stemmed from one of her earlier jobs as a piano teacher.

"Learning how to teach a six-year-old to read music was an important first step in building my knowledge translation skills," she admits.

When discussing her more recent experience with SPRINT, Katherine says the most important skill she acquired, was how to learn about very different fields of research quickly, efficiently and with confidence. "Since everyone came to the team with a different background, we had to learn quickly how to explain

ideas and organize the project in a way we could all understand."

In so far as her long-term career goals, Katherine confesses that she is still exploring her options. There are a few MS related projects she would like to complete, as well as continuing to pursue her research as an academic, given her love of teaching. "I am also very interested in health inequities and supporting caregivers at more of a policy level, so a career in population health is also of interest to me," she adds.

When not contemplating her many goals, Katherine spends her spare time playing the piano. She says she recently had the very special privilege, and pleasure of "playing a friend down the aisle of her wedding."

Further to her musical exploits, Katherine enjoys spending time outdoors. Regarding her current home town, Katherine says, "Ottawa is really well situated for outdoor adventure, so I love to camp, hike, and trail run every chance I get."

“One thing I've learned is how diverse the lived experience of MS can be, and how there are constantly new challenges to overcome.”

Mona Hejazi is currently living in St. John's, Newfoundland where she is carrying out research at Memorial University of Newfoundland. Mona completed her undergraduate studies at the Islamic Azad University-Science and Research Branch in Tehran, Iran. After obtaining her BSc in medical radiation engineering, she then completed her MSc in biomedical engineering.

Elaborating upon her academic journey thus far, Mona reveals that her studies began in biomedical engineering, focusing on medical image processing for cancer detection and brain signal processing for predicting epileptic seizures. She says this experience fueled her passion for advancing disease detection, prediction, and patient care.

"As I progressed through my PhD, my expertise in brain signal analysis led me to a profound interest in neuroscience and Brain-Computer Interfaces for rehabilitation. Collaborating with the Recovery and Performance Lab at Memorial University of Newfoundland has allowed me to work closely with the MS patient community, driving my motivation to integrate this new technology into MS rehabilitation," Mona explains.

Currently, Mona is developing an innovative system designed to detect



Mona Hejazi

brain signals during both real and imagined hand movements, using Brain-Computer Interfaces.

"This technology aims to enhance hand dexterity in individuals with MS. To assess its feasibility, I am investigating how imagined hand movements affect corticospinal excitability through Transcranial Magnetic Stimulation and Electromyography. Additionally, I am studying brain patterns during these imagined movements using an electroencephalography (EEG) system to gain deeper insights into the technology's potential for MS rehabilitation," she says.

Mona says she has been fortunate throughout her graduate studies, to have had the guidance of several influential mentors. Her PhD project supervisors, Dr. Sarah Power and Dr. Michelle Ploughman have both played pivotal roles in shaping Mona's study path. "Their support and encouragement have been instrumental in my development, inspiring me to pursue new opportunities and expand my horizons."

On the topic of her first job, Mona shares how her first role as a biomedical engineer involved approving and validating medical devices for use in clinics and hospitals, as well as calculating shielding requirements for medical linear accelerators used in cancer treatment. She says, "Although I hadn't initially planned a research career, my MSc research ignited a profound passion for the field. This newfound enthusiasm led me to pursue a PhD, where I now combine my engineering background with a commitment to advancing patient care."

When asked if she believes a cure for MS will be found in her lifetime, Mona is optimistic and reveals that she is looking forward to contributing to the progress.

To that end, Mona says she joined SPRINT after having been inspired by the success of previous SPRINTers. She viewed SPRINT as an opportunity to enhance her skills, gain valuable experience, and expand her professional network.

Ultimately, Mona says SPRINT both inspired her, and helped her overcome challenges by leveraging the knowledge and experience of others in the field. She adds that the positive impact of interacting with individuals living with MS and participating in events like MS Canada conferences, SPRINT, and endMS Summer Schools have

strengthened her commitment to MS research and have driven her desire to contribute to this field.

Mona's long-term career goal is to work as a researcher and development specialist in the neuro-engineering industry. "Bridging the gap between academia and practical applications to improve the lives of MS patients, especially in rehabilitation."

Outside of her research, Mona enjoys exploring nature through hiking, mountain biking, and rock climbing. Additionally, she says "I also find relaxation in watching movies, listening to podcasts or music, reading self-improvement books, and staying fit through gym workouts or dancing."

“I now combine my engineering background with a commitment to advancing patient care.”

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- Dr. Soheila Karimi**
2024 endMS SUMMER SCHOOL CO-HOST, UNIVERSITY OF MANITOBA

Leah S. Hohman



Dr. Leah S. Hohman is originally from Nanaimo, but now lives in Vancouver, British Columbia. After graduating with a BSc in biology and microbiology from the University of Victoria, Leah received her PhD in immunology from the University of Calgary.

With a background in immunology, Leah is especially interested in progressive forms of MS, which she believes are underserved by current immunotherapeutics. Leah says her decision to focus her research on MS lies in her interest in its highly complex, and multifactorial nature.

Currently pursuing her postdoctoral studies, Leah's work focuses on the gut-brain axis and aging.

"More specifically, independent of diagnosis time, age is linked to more progressive forms of MS. As individuals age, their gut microbiome and their intestinal barrier (which physically separates the microbiome from the broader body) undergo dramatic changes. We already know that the microbiome is linked to MS, so my work focuses on how both the aged microbiome and intestinal barrier affects MS, with the hope of identifying new links to progression and thus therapeutic targets," Leah explains. "I am on the basic science side of the spectrum, so right now my work focuses more on cause and risk factors, but the ultimate goal is that it will lead into new therapeutic targets and potentially repair."

Grateful for the support of her PhD mentor, Dr. Nathan Peters, and her current postdoctoral supervisor, Dr. Lisa Osborne, Leah says both have

given her the "freedom to delve into research areas," she finds interesting. Reflecting upon how her earlier PhD work in immunology was considerably different from her current postdoctoral studies, Leah recalls, "I was focused on the neglected tropical disease Leishmania, and trying to identify why traditional vaccination strategies proved ineffective at preventing disease."

Wanting to experience a new immunological field, Leah says MS was the right fit for her postdoctoral studies for a variety of reasons, including: the high prevalence of MS in Canada, the immunological complexity of MS, and her desire to work with Dr. Osborne.

Leah joined SPRINT to build direct connections with the Canadian MS research community. "Also, being newer to the field I wanted to take every opportunity I could to learn more about it!" she says.

Leah describes the SPRINT program as being highly motivating. Having

learned a lot from her SPRINT team project which focused on B cell targeting immunotherapeutics, Leah says she "enjoyed seeing all the different ways people are researching MS across Canada. It's an incredible research community and learning more through the program made me want to continue to be a part of it." Leah says the "excellent networking opportunities at both the peer and mentor level" were a huge benefit of SPRINT. She hopes the connections she has made will eventually turn into future collaborators.

Leah's long-term career goals are to continue in academia and establish her own lab.

When not working, Leah says, "I love spending time with my little family (my partner and our two dogs)." She also enjoys "singing, cooking, and playing pretty much all genres of games: board, sports, table top, and video."

"Enjoyed seeing all the different ways people are researching MS across Canada. It's an incredible research community and learning more through the program made me want to continue to be a part of it."

Originally from Winnipeg, Manitoba, SPRINT mentor **Dr. Kaarina Kowalec** obtained her BSc and MSc in viral genetics from the University of Manitoba, and her PhD in genomics from the University of British Columbia.

For her postdoctoral studies, Dr. Kowalec performed genetics research in schizophrenia. "And I still do!" she says, adding that she initially branched out for her own interest and desire to learn new skills.

When asked what led her to the study of MS, Dr. Kowalec says, "MS affects me on a personal level as my mom has MS." She admits that MS is particularly difficult to study given its complexity, and that "relatively little" is still known about it. "What I find intriguing about MS is that you could take two people with MS that have had it for the same length of time but their symptoms can be wildly different," she explains.

Currently, Dr. Kowalec's work focuses on using biomarkers to identify poor outcomes in MS, "like preventing adverse drug reactions or disease activity, or the development of comorbid depression."

Kaarina reveals that she is about to embark on a project that will use genetics to understand brain and cognitive reserve in MS.

When discussing her career path, Kaarina mentions two mentors who were instrumental to her MS research.

Kaarina Kowalec



"Professor Helen Tremlett (my PhD supervisor) and Dr. Ruth Ann Marrie (my faculty mentor). They both encouraged me to work hard and to not be afraid to try something new."

Outside MS research, Patrick Sullivan, a professor in schizophrenia genetics, was also instrumental in pushing Kaarina's intellectual boundaries.

Despite having followed their advice, Kaarina must still face some challenges. One such challenge stems from the fact that her field of research spans both epidemiology and genetics. As such, Kaarina admits that she often feels like she is "trying to be an expert in two fields at the same time." Although this can feel overwhelming, she is quick to add, "But I have many collaborators who are experts to help guide me."

Kaarina recalls wanting to be a marine biologist when she was younger. "Being raised in Manitoba, I could not find any zoos with dolphins, so I swapped to virology after watching the movie Outbreak, and luckily, the national microbiology lab (AKA: the virology lab) was in Winnipeg."

Prior to pursuing research, Kaarina worked as an office assistant. She says that first job taught her to be on time and work hard. "Those principles still apply to me today!" she says.

As a former SPRINT trainee, Kaarina says her experience as a mentor this year, taught her how to help students, even when working remotely. "It also taught me that a project needs to be thought through from the beginning as much as possible."

Communication with mentees was of primary importance to Kaarina. She ensured that she was available and approachable to them. "I want mentees to feel comfortable asking questions and getting advice without fear of being judged."

Dr. Kowalec says she intends to continue pursuing MS research, "Because I think my work will one day help someone with MS." When asked if she believes a cure for MS will be found in her lifetime, she responds in the affirmative. "Yes, I think with all the bright minds we have in MS research, either as trainees or researchers, we will find a cure."

Until then, Dr. Kowalec's advice to trainees is to "Keep in close contact with your mentors to make sure progress is being made on your project. Even one 10-minute call every two weeks, is helpful," she says.

Outside of her research, Kaarina enjoys spending time with her children, her husband and their dog. She also enjoys working out, and traveling.



"I want mentees to feel comfortable asking questions and getting advice without fear of being judged."

2024-2025 endMS SPRINTers

Dr. Kevin Champagne-Jorgensen
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Tatiana MacKeigan
UNIVERSITY OF BRITISH COLUMBIA

Jake Neufeld
UNIVERSITY OF SASKATCHEWAN

Dr. Bozena Szulc
UNIVERSITY OF ALBERTA

Dr. Lies Van Horebeek
UNIVERSITY OF BRITISH COLUMBIA

Dr. Paul Yoo
THE HOSPITAL FOR SICK CHILDREN

2024-2025 endMS SPRINT Mentors

Dr. Mark Horwitz
UNIVERSITY OF BRITISH COLUMBIA

Dr. Julie Petrin
MS CANADA

Dr. Raphael Schneider
UNIVERSITY OF TORONTO

Megan Krysak is pursuing her MSc in neuroscience at the Université de Montréal, but recently returned to her hometown of Calgary, Alberta to complete the writing of her thesis.

Prior to obtaining her Honours BSc in neuroscience from the University of Toronto, Megan's participation in an undergraduate research opportunity led her to the pursuit of MS research. "The sheer prevalence of individuals with MS" inspires Megan to "contribute to a cure and really provides the foundation for why I initially pursued MS research. If my research can help even one person, then I would consider it a success," she says.

At the onset of Megan's research within the field of MS, she spent two summers as an undergraduate researcher in the lab of Dr. Shalina Ousman at the University of Calgary. That undergraduate research position was Megan's first job. "This position led me exactly to where I am today! Without the experience and mentorship I gained in the Ousman lab, I would likely not have pursued MS research," she reveals. Expanding on her MSc work, Megan explains that she studied how a cell

adhesion molecule called ICAM-1 modulates interactions between microglia and T cells in neuroinflammation, particularly in MS and experimental autoimmune encephalomyelitis.

Not long after Megan began her graduate studies in the lab of Dr. Catherine Larochelle at the Université de Montréal, she received a phone call from a distressed family member who had recently been diagnosed with MS.

Megan Krysak



"The bravery, strength, and positivity I have seen in this individual since their diagnosis, has been unwavering," Megan says. She adds that this personal connection to MS has increased her motivation "exponentially" to contribute to both halting MS progression and finding a cure.

Megan believes she would not be the scientist she is today, without the help of her supervisor, Dr. Catherine Larochelle. "She is not just an incredible mentor who encourages growth and creativity in the lab, but is also an inspiring role model."

Regarding SPRINT, Megan says, "I really loved the idea of an interdisciplinary project that would push me outside my comfort zone and allow me to build and make connections with a network of like-minded individuals. SPRINT has helped me form a network of researchers to collaborate with, but also build life-long connections and friendships. I was inspired by the drive and focus of all three SPRINT teams this past year, encouraging each other along the way to successful outcomes."

As a result of her participation in SPRINT, Megan says she has "gained the ability to recognize and leverage the strengths of individuals with vastly different backgrounds within an interdisciplinary project. She adds, "I am incredibly grateful for the wonderful and tight knit community that MS Canada provides. We are lucky to have such an amazing foundation

that supports our research and fosters real connections between students and investigators."

Apart from teaching her how to conduct a scoping review; from generating a search strategy to screening titles and abstracts and full texts, Megan explains that SPRINT also exposed her to opportunities she says she "would likely have not previously considered as possible careers."

When discussing her future career ambitions, Megan says she would like to work for a biotechnology or pharmaceutical company with "the goal of creating therapies for and helping those with MS or other neurological disorders."

Outside of research, Megan enjoys travelling and hiking, playing sports, camping, "or just exploring the city!" She says, "I am very fortunate to live in close proximity to the Rocky Mountains and I make sure to take advantage of every moment I'm able to get outside and explore them."

"I really loved the idea of an interdisciplinary project that would push me outside my comfort zone and allow me to build and make connections with a network of like-minded individuals."

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Hedwich F. Kuipers was born in Leeuwarden, the Netherlands and currently lives in Calgary, Alberta, where she is an assistant professor at the Cumming School of Medicine at the Departments of Clinical Neurosciences and Cell Biology & Anatomy.

After obtaining her BSc/MSc in biopharmaceutical sciences, Hedwich completed her PhD in immunology at Leiden University, in the Netherlands. Following postdoctoral studies in neuropathology at Vrije Universiteit in Amsterdam, she pursued additional postdoctoral training in neuroimmunology, and autoimmunity at Stanford University, in California.

Hedwich's interest in MS began in university, when she "crossed paths" with a project that focused on the immune functions of glia and how they change in MS. Since then, the complexity of neuroimmunology, combined with the mystery of what causes MS, has kept Hedwich captivated, and continues to be the driving force behind her research.

Dr. Kuipers' current project focuses on the interaction between astrocytes and immune cells.

"We try to understand which functions astrocytes have at different stages of MS... and how they communicate with the other cells that are present in MS lesions. In particular, we study how the extracellular matrix plays a role in this communication," she explains.

Many people have influenced Hedwich on her career path, from her earliest thesis mentors, to Dr. Larry Steinman, her postdoc mentor at Stanford, (who often reminded her to put people with MS front and center in research), and the colleagues that currently mentor her as a new Principal Investigator. Of those, she says Dr. Wee Yong, is "kind and encouraging" and sets "an incredible example of perseverance and dedication."

Through her previous research with the Dutch MS Research Society and now MS Canada, Hedwich has had the opportunity to meet many individuals living with MS. She says each meeting reinforces her desire to figure out what causes and drives MS.

Hedwich F. Kuipers



Unsured as to whether a true cure will be found in her lifetime, Dr. Kuipers believes that by better understanding the processes that drive pathology and MS progression, "we will be able to halt MS early on and enable people with MS to live a life that is minimally impacted."

Before embarking on a career in research, Hedwich's first job was delivering flyers for a local produce seller, in a tiny village in the Netherlands. While that job may not appear to be relevant to her work today, she recalls how it helped her develop tenacity, since, "it involved biking around town rain or shine, and in the Netherlands, there tends to be more rain than shine."

When discussing her recent experience as a SPRINT mentor, Hedwich says, "I'd like to think that I'm a hands-off, yet engaged and encouraging mentor, giving guidance and direction when needed, but also allowing trainees to carve their own path."

She admits that being a SPRINT mentor elevated her mentorship and project management skills.

"The energy and keenness of all the SPRINTers has inspired me to keep engaged with the wonderfully diverse and passionate endMS community."

Wanting others to experience SPRINT, Hedwich offers the following advice, "If you're on the fence about the program: just do it! You will meet so many wonderful people and gain so many new skills that you didn't even think you would."

Dr. Kuipers' long-term career goal is to become one of many leaders in global MS research.

With two young boys, most of Hedwich's time outside the lab is spent "exploring the world through their eyes, going on bike rides or hikes, or visiting the many wonderful sites Calgary has to offer. When they are a bit older, I would like to get back into Brazilian Jiu-Jitsu though, which I did throughout my postdoctoral studies, as it's the best thing to clear your mind."

"If you're on the fence about the program: just do it! You will meet so many wonderful people and gain so many new skills that you didn't even think you would."

Ateyeh Soroush earned her BSc in biomedical engineering from Amirkabir University of Technology, in Tehran, Iran. She is currently pursuing a PhD in neuroscience at the University of Calgary, in Alberta, where she now resides.



Ateyeh Soroush

Ateyeh was introduced to MS when she started working as a volunteer in a lab that was just beginning to apply a new optical brain imaging technique for the study of MS. "I saw great potential in using and developing this technique for MS research," she recalls.

Ateyeh reveals that during her graduate degree project on MS, interacting and engaging with people living with MS, inspired her. "The complexity and uniqueness of each individual's symptoms and experiences deepened my interest in the field, as there is so much to explore and understand. Throughout my graduate studies, I also became well-connected with the MS community, including patients, researchers, and clinicians. This network

has been invaluable for both knowledge and professional connections," she says.

Currently, Ateyeh's research involves a novel, non-invasive optical imaging technique called near-infrared spectroscopy. She is studying how low brain oxygen levels (cortical hypoxia) relate to the neurophysiology, cognitive performance, and biomarkers of people living with MS.

Reflecting upon her academic journey thus far, Ateyeh recalls, "During my undergraduate studies, I worked as a biomedical engineering intern, where I was responsible for device quality control and documentation. As a volunteer, I collaborated with other students to form a research team focused on understanding patient needs in clinical environments, and reported our observations. This experience taught me that there is always room for improvement, especially in the medical field, and that paying attention to detail is crucial."

When discussing the mentors who have inspired her on her career path, Ateyeh mentions that she has always wanted to teach at a university – just like her dad. Apart from her father, other important mentors have included Ateyeh's PhD supervisor, Dr. Jeff Dunn. Of him, Ateyeh notes his, "remarkable ability to think outside the box and identify small details in science that can lead to studying more significant and impactful topics in a multidisciplinary



way. I've learned a great deal from him in this regard. He has also been an excellent advisor."

When asked about some of the challenges she's dealt with in her particular field of research, Ateyeh admits that working with human data is both an honor and a challenge, especially when studying MS, where each person has a unique experience. "Making statistical decisions while considering this diversity can be difficult. However, this experience has significantly broadened my knowledge and taught me new skills, allowing me to develop a more comprehensive and scientific perspective on clinical findings," she says.

Having heard many good things about SPRINT from her colleagues, Ateyeh joined the program wanting "to gain

more insights as a current and future researcher." Believing that SPRINT would broaden her perspective in the field of MS, Ateyeh says SPRINT "pushed me out of my comfort zone and taught me how to work effectively in a team while also being able to independently move a project forward." She adds, "These programs and opportunities have really expanded my thinking and encouraged me to approach problems differently, which is a valuable practice for any researcher."

Ateyeh's long term career goal is to continue doing research, as a university professor.

When not pursuing her academic goals, Ateyeh spends her free time playing piano, snowboarding, hiking, and swimming.

"These programs and opportunities have really expanded my thinking and encouraged me to approach problems differently, which is a valuable practice for any researcher."

2023-2024 endMS Peer Review Committee

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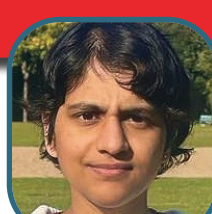
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MCGILL UNIVERSITY

Anik Schoenfeldt
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endMS NATIONAL TRAINING PROGRAM

Risavarsjni Thevakumaran is currently a doctoral student in the Quantitative Microstructure Imaging Lab at McGill University in Montreal, Quebec, where she is pursuing her PhD in biomedical engineering.

Risavarsjni Thevakumaran



Risa obtained her BEng at Toronto Metropolitan University, followed by her research-based MEng, at McGill University.

She explains how she would like to improve prognosis of MS from its early to late stages, and contribute to scientific understanding of pathological changes to maximally reduce disability progression. "Above all, I want to be an ally to people with MS (PwMS) because the ultimate goal of our research is to help improve the standard of living and treatments for PwMS."

During her master's degree, Risa "developed an MRI pulse sequence for imaging the human cortex with a contrast specific to myelin phospholipids at ultra-high field (7 Tesla field lengths)." "

Currently, Risa is studying "surface-in gradient patterns" of pathology in MS in the cortical gray matter, with a focus on subpial cortical demyelination. She says she is particularly interested in developing MRI imaging techniques to better characterize pathological changes in the MS brain. "A key part of my research incorporates [11C]PBR28 PET imaging to image microglia, the primary immune cells causing tissue damage, and understanding how microglia are triggered to cause demyelination and neurodegeneration."

When asked if any mentors have inspired her on her career path, Risa names her PhD supervisor, Dr. David Ruckl. She adds, "Above all, my mother has been my number one motivator in my higher education path. I want to thank my mother for unconditionally supporting me in my (very long) higher education and career path. I am a first-generation student and come from a low-income

family, but my mother instilled in me a passion for science and outreach at an early age."

Reflecting upon her teenage years, Risa recalls her first job as tutor in high school. "I loved teaching math and physics. When I was younger, I aspired to become an archeologist or paleontologist – anything that involved studying ancient biological life or ancient human civilizations."

Risa believes that first job taught her the importance of acquiring efficient learning strategies and communicating science, technology, engineering and math (STEM) topics to peers and younger students. "This is something that I still consider when communicating my scientific findings in conferences or symposia and when mentoring," she says.

Given her desire to conduct a research project in an interdisciplinary team, Risa decided to join SPRINT. "It is humbling to see trainees and researchers doing work targeting different aspects of MS, especially when one's PhD research usually fixates on one (but important) aspect of MS," she admits.

"SPRINT has certainly helped me acquire team-building and time management skills. I have learned a lot about MS treatments and formed great friendships with my teammates and our SPRINT mentor."

"Most importantly," she says, "I have learned about the knowledge translation framework, and how to communicate research on MS to people with MS and their caregivers."

Risa plans to pursue MS research in the long term and intends to go to medical school after completing her PhD. Wanting to specialize in neuropathology, she reveals her "goal is to develop imaging techniques and correlate imaging findings with immunohistochemistry, to contribute to neuropathological research..."

Outside of her studies, Risa enjoys reading fiction, and loves to draw and do digital sculpting of human faces. She admits, "I am kind of a hermit crab in that I don't go out with my friends frequently, but I do love travelling (when I have the money)."

"I have learned about the knowledge translation framework, and how to communicate research on MS to people with MS and their caregivers."

Jordan Warford



Originally from Corner Brook, Newfoundland, Dr. Jordan Warford now lives in Nova Scotia, where he is the executive director of Planning and Performance at the Government of Nova Scotia's Department of Health and Wellness.

After obtaining a diploma in forensic science, Jordan received his BSc (Honors) in psychology, cum laude, from Saint Mary's University, in Halifax, Nova Scotia. He then completed his MSc in pharmacology and neuroscience, followed by his PhD in pathology at Dalhousie University, in Nova Scotia.

Jordan's journey into MS research began in 2008, at the launch of the endMS network. At that time, Jordan

faced a choice: to delve into the biological basis of schizophrenia or to explore new treatments for people with MS. What began as a pragmatic decision quickly evolved into a deep passion.

Currently, Jordan is working on a project that bridges the gap between clinical practice and laboratory research in MS. His goal is to ensure that every person with MS has access to personalized therapies that consider their entire experience of living with MS.

Having witnessed the unique journeys of many individuals living with MS, filled Jordan with a profound sense of responsibility. Inspired by their courage, strength and resilience, Jordan says he is continually motivated by the hope that his work "can help build a future where MS no longer defines or limits those it touches".

When asked if he thinks a cure for MS will happen in his lifetime, Jordan replies that he is confident that either a cure will be discovered, or more effective treatments that halt progression and restore function, will be developed.

"The relentless pace of scientific advancements and the unwavering

dedication of the global research community fill me with optimism," he says. "The journey may be long, but with every step forward, we draw closer to realizing that goal."

Reflecting upon his career, Jordan recalls with fondness the important mentors who have inspired and guided him. "Dr. George Robertson was my first scientific mentor who catalysed my work ethic and meticulously taught me how to distill complex data into a compelling story. Dr. Alexander Easton unlocked my leadership potential, providing a creative space where I could collaborate, develop independence, and gain confidence."

As a SPRINT mentor, Jordan describes guiding "passionate trainees eager to make a positive impact" as a humbling experience. He also attributes SPRINT with having reaffirmed his belief in the power of community and collaboration in driving innovation.

Dr. Warford's advice to trainees is simple: remain curious and do not fear failure. "Embrace diverse perspectives and surround yourself with people who genuinely care about you. Choose those who will challenge your thinking, hold

you accountable, and push you outside your comfort zone at just the right moments," he suggests.

Equally, his advice for mentors is to "encourage risk-taking, provide guidance, and be a steady support system" for mentees. He adds that mentors should also "embrace authenticity and be open to being challenged".

Prior to embarking on MS research, Jordan's first job was as an online editorial manager and tutor for a guitar website. "Growing up, I dreamed of becoming a marine biologist (inspired by the film Free Willy), a geologist (thanks to a neighbor who loved rocks), and ultimately, a physician – nudged by societal expectations and a drive to help." Jordan eventually settled into research, which he says "felt like a natural fit".

Now, Dr. Warford's long term goal is to continue driving innovation in healthcare, particularly in MS. "I want to be part of a movement that not only advances research but also reshapes how we think about and deliver care," he says.

"The relentless pace of scientific advancements and the unwavering dedication of the global research community fill me with optimism."

2024 endMS Summer School Planning Committee

- Dr. Soheila Karimi**
CO-HOST, UNIVERSITY OF MANITOBA
- Dr. Chase Figley**
CO-HOST, UNIVERSITY OF MANITOBA
- Dr. Kaarina Kowalec**
UNIVERSITY OF MANITOBA
- Dr. Jennifer Kornelsen**
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- Dr. Galen Wright**
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- Dr. Elisabet Jakova**
UNIVERSITY OF MANITOBA
- Dr. Shiva Nemati**
endMS SUMMER SCHOOL COORDINATOR
UNIVERSITY OF MANITOBA
- Teresa Figley**
endMS SUMMER SCHOOL COORDINATOR
UNIVERSITY OF MANITOBA

Darrin Wijeyaratnam received his Bachelor of Kinesiology degree from the University of Toronto, and his MSc in human kinetics from the University of Ottawa, where he is currently pursuing his PhD in human kinetics.

Explaining why he has chosen to focus on MS, Darrin explains, "Nearing the end of my MSc at the University of Ottawa, my current supervisor,

Dr. Erin Cressman, formed a collaborative project with Dr. Lara Pilutti to examine and characterize upper limb function in individuals affected by MS. I was drawn to the project and asked if I could be its lead investigator."

That project led to further research questions, which Darrin says he is "keen to address."

He adds that "being at the right place, at the right time" spring-boarded him to the pursuit of "supporting the needs and ameliorating the quality of life of people with MS."



Darrin Wijeyaratnam

Having previously examined how people with MS process sensory (visual and proprioceptive) information – and then use that information to plan and execute goal-directed movements to stationary and moving targets – Darrin found that people with MS experience deficits in the planning of upper limb movements.

"My current experiment looks to develop more challenging reaching environments to gauge how people with MS develop compensatory strategies to overcome their upper limb impairment," he explains. Consequently, Darrin's aim is to implement a series of challenging visuomotor tasks in novel environments geared to train and improve sensory, motor, and cognitive function in individuals with MS.

Elaborating on why he joined SPRINT, Darrin says, "Throughout the several endMS Summer School's that I attended,

I have always seen SPRINT groups present some form of review (e.g., systematic, scoping, etc.). I have never written a review and in the work that I typically do, there is a low chance that I would ever write one. Thus, I thought it would be an interesting experience to learn about something that I would not typically be exposed to."

Enumerating the skills and benefits he gained as a result of SPRINT, Darrin begins with interdisciplinary collaboration, followed by problem solving, creativity, teamwork, project management, networking, and professional development.

"I have developed several soft skills that will make me a better scientist. I will continue to enhance my ability to identify and challenge assumptions, transform knowledge into practice, and think creatively by imagining and exploring alternative solutions to unpredictable situations," he says.

Courtesy of his experience with SPRINT, Darrin says he has established "an extensive list of individuals across a variety of topics who are eager and

interested" in his ideas, all toward the goal of supporting "the needs of people with multiple sclerosis." Darrin has "already initiated discussions that will lead to future collaborations and career opportunities."

Darrin's future career goal is to become a professor at a North American university, where he can simultaneously pursue research and teaching, "with a strong emphasis on research advancement and collaboration," he adds.

When not pursuing his career goals, Darrin enjoys being outdoors where he can appreciate nature. He notes that his Instagram feed is filled with pictures of trees and flowers. He also plays a variety of sports, including volleyball and more recently, squash. He admits that one of the activities that most energizes him is playing board games with fellow students from the University of Ottawa. "We (inadvertently) formed a group that gets together frequently to share in laughs, games, and each other's pastimes."

"I thought it would be an interesting experience to learn about something that I would not typically be exposed to."

Kaihim Wong was born in the Tai Po district of Hong Kong, China, and currently lives in Winnipeg, Manitoba.

After earning his BSc in physics from the University of Winnipeg, Kaihim began pursuing his MSc, but soon transferred to the PhD program.

Kaihim was first introduced to MS through a summer research opportunity. That research project involved automating the image processing pipeline (which included normalizing brain sizes and correction to artifacts) for an MRI modality for a local MS cohort dataset (CCOMS). Motivated by the MRI aspect, Kaihim says he "delved deeper into understanding MS and decided to pursue research in this field."

Fascinated by the complexity of the central nervous system, Kaihim intends to expand his knowledge thereof by studying brain disorders. He says the "supportive and connected MS research community further inspired me to dedicate my efforts to this cause."

Having previously shadowed neurologists in an MS clinic, Kaihim says he was struck by the positivity and resilience of the individuals he met who were living with MS. "Although one may be biologically disabled by MS, I strongly believe that it shouldn't define one's ability to live a fulfilling life."

Currently, Kaihim is working on a project with the aim of assessing the feasibility of predicting MS lesion evolution patterns using advanced MRI methods.

Throughout his studies, several mentors have inspired and encouraged Kaihim, including his current Principal Investigator, Dr. Chase Figley. "Without his guidance, I wouldn't be where I am today," Kaihim says, adding that he is also grateful to "Dr. Jordan Warford, my SPRINT mentor, and to Drs. Melanie Martin and Esmat Elhami, my former supervisors for undergraduate research, and to Mr. Ron Butterfield who introduced me to the field of medical physics."

Although he aspired to be a veterinarian when he was a child, Kaihim's first job in Canada involved selling lawn aeration services door-to-door. Reflecting upon that experience, Kaihim says it helped him develop more self-confidence and improved his public speaking skills. He believes the rejection inherent to door-to-door sales work also taught him the importance of persistence – a quality that is crucial to his current work.

These days, Kaihim's long-term career goal is to become a clinical medical physicist.

When asked if he believes a cure for MS will be found in his lifetime, Kaihim replies that it is "very likely" especially given the "progress made by the previous generations" of researchers and the "potential of the next generation."

Kaihim's decision to join SPRINT stemmed from his wish to contribute to the field of MS, step out of his comfort zone, and develop new skills.

"SPRINT has been a wonderful journey, helping me grow as both a researcher and a person. The program challenged me, improved my time management skills, and provided a supportive working environment. My teammates and their dedication have been a significant source of inspiration." He adds, "I have gained insights into the field of real-world evidence, applicable not only to MS but also to daily life. Additionally, I have a deeper understanding of my peers' MS research, which is motivating and inspiring."

According to Kaihim, SPRINT not only expanded his network, but also allowed him to learn from others' career trajectories. "This has helped

me visualize my interests and direction. The independence and freedom co-created by the program and my mentor have helped me seek my balance in academic work," he says.

Although most of his time is spent studying and researching, Kaihim also enjoys working out and playing badminton. Revealing his passion for both listening to and making music, Kaihim says, "I do not own all the instruments physically, but with technologies, I could. What a time to be alive!"

"SPRINT has been a wonderful journey, helping me grow as both a researcher and a person."

2024 endMS Summer School Review Committee

- Dr. Soheila Karimi and Dr. Chase Figley**
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ST. FRANCIS XAVIER UNIVERSITY
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endMS NATIONAL TRAINING PROGRAM



MESSAGE FROM THE 2025 endMS SUMMER SCHOOL HOSTS

The University of Alberta (UAlberta) and the UAlberta Multiple Sclerosis (MS) Centre are excited to host the 2025 endMS Summer School in Edmonton from June 16-19, 2025. We are pleased to invite trainees interested in MS research to this unique learning and networking opportunity.

Our theme for this year's school will be **The Life Cycle of Technology for Multiple Sclerosis**, focusing on how different discoveries get translated into clinical practice and how these technologies become incorporated into the continuum of MS care. Health technologies are the devices, medicines, vaccines, procedures and systems that improve health care. We will focus on vaccines, biomarkers, and treatments for MS following their development, from the early discoveries that made these technologies possible, to their translation into clinical research and ultimately into practice.

Our program will include speakers from the MS centre in Alberta. The UAlberta hosts strong institutes with outstanding researchers, including the Neuroscience and Mental Health Institute and the Li Ka Shing Institute of Virology. The UAlberta is also privileged by its access to cutting-edge equipment, from MRI and flow cytometry to Mass Spectrometry. The university is within close proximity to the Northern Alberta MS clinic, which provides services to diagnose, treat, and support people with MS.

In Edmonton, trainees will benefit from a comprehensive program that includes seminars to understand the life cycle of technology and how it relates to MS. They will also learn firsthand about these areas through focused workshops showcasing MS research

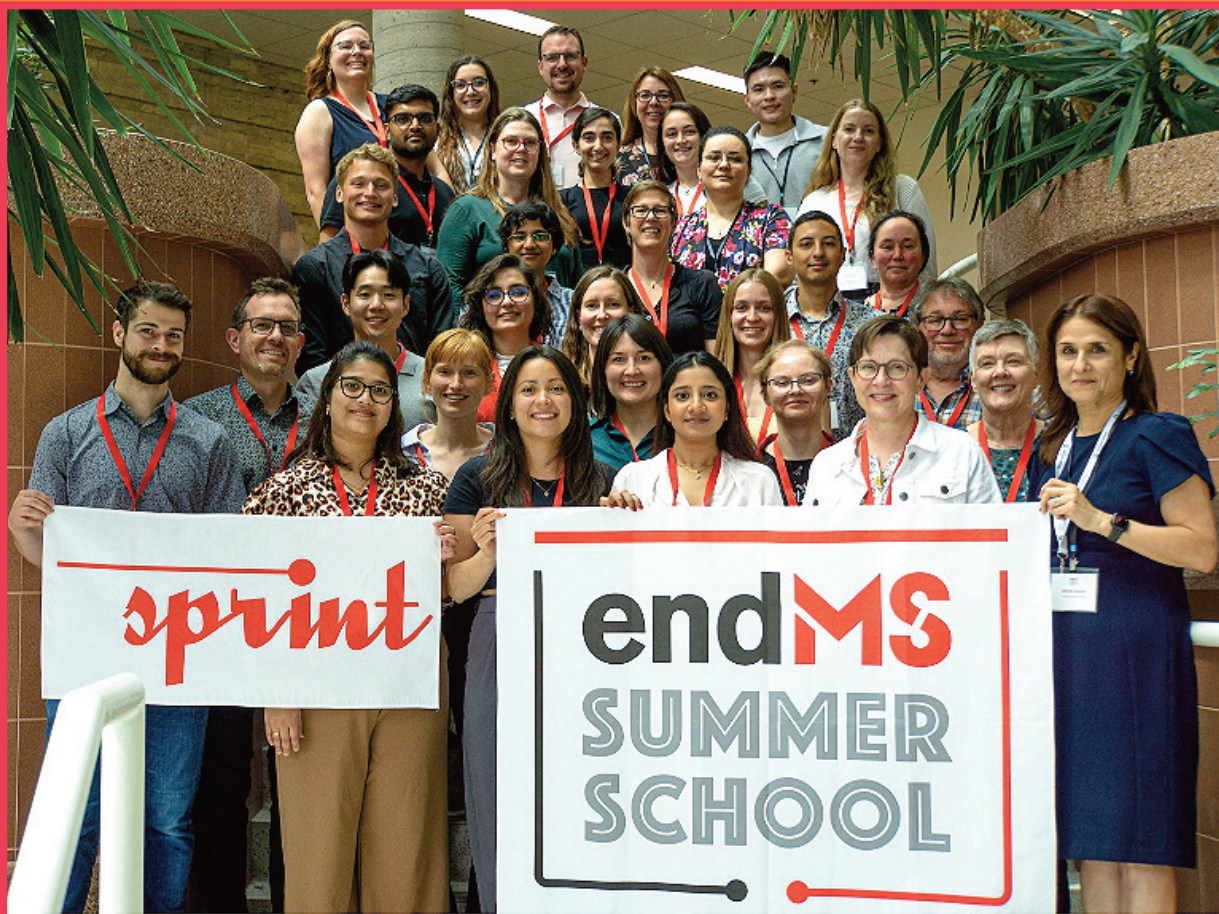
and translation. We will include career development sessions, interactive events with people living with MS, and SPRINT team presentations on their year-long interdisciplinary project.

We are excited to host the 2025 endMS Summer School, where trainees will have the opportunity to learn from leading experts in the field, network with other professionals and individuals living with MS, and gain valuable insights into the latest developments in MS research and technology.

We look forward to welcoming you to Edmonton next year!

- Dr. Jason Plemel**,
University of Alberta
- Dr. Jennifer A. McCombe**,
University of Alberta





Winnipeg 2024 endMS Summer School



“ I really liked that Summer School covered research from all different disciplines. I feel like there was one session for each person to feel like an “expert” on the topic and the rest were all new fields of research. I especially liked the combination of lectures and interactive demonstrations and workshops. I really liked the mix of panels as well, and that we could interact with people with lived experience throughout the sessions and meals.”

– 2024 endMS Summer School participant



“ It was very well run and organized. I like that it felt like a level playing field between the trainees and the staff/faculty – I felt just as able to have a conversation with them as I did my peers. The sessions were really informative – I feel I now have a better understanding of the more clinical sides of MS research, and I have contacts to ask if I need help! The lived experiences panel was brilliant and motivating for a lot of us. Overall, I really enjoyed my time, and I can’t wait to go back next year.”

– 2024 endMS Summer School participant



“ Amazing day, participating in the sessions was very beneficial in that we learned more about why things are done the way they are... i.e., MRI, neuro scans, etc. I loved all the practical stuff and explanations of what we as patients go through.”

– 2024 endMS Summer School lived experience panel member

2024
SPRINT Team Meetings



“ I now have an extensive list of individuals I can contact across a variety of topics who are eager and interested to support the needs of people with multiple sclerosis. I cannot wait for the opportunity to tap into this network and truly make a difference for the lives of people with MS and their communities.”

(2023-2024 endMS SPRINT participant)



“ Ever since I attended the endMS Summer School and became part of the network, I have hoped to stay in the MS field for as long as possible. The SPRINT project is the cherry on top.”

(2023-2024 endMS SPRINT participant)



“ Participating in the SPRINT program definitely has motivated me to pursue MS research in my post-doctoral studies, especially given that I was able to see the variety of work done by fellow researchers in different fields.”

(2023-2024 endMS SPRINT participant)

Alumni *sprint* updates

■ **Dr. Nima Alaie** began a post-doctoral fellowship at UBC Therapeutic Initiatives.

■ **Dr. Jessica Allanach** successfully completed her PhD in 2023 and served on the endMS Education and Training Committee as trainee alumni member from 2021-2023.

■ **Charbel Baakini** was awarded an endMS Doctoral Studentship for his project: “CNS’s resident immune cells: Microglia, the regulators of remyelination.”

■ **Rochelle Benoit** was awarded an endMS Doctoral Studentship for her project: “Investigating the effects of Bruton’s tyrosine kinase inhibition in myeloid cells in the context of multiple sclerosis.”

■ **Dr. Syamala Buragadda** successfully defended her PhD thesis, “Gait Rehabilitation and Monitoring in Multiple Sclerosis: Optimal Rehabilitation Interventions, Longitudinal Changes, Sex Differences, and the Protective Role of Cardiorespiratory Fitness.” Her PhD in clinical epidemiology was awarded on August 1st, 2024. Dr. Buragadda is currently a postdoctoral fellow in the Accelerating Clinical Trials Consortium at McGill University.

■ **Dr. Marc Charabati** was awarded an endMS Postdoctoral Fellowship for his project: “Repurposing Miglustat to Modulate Astrocyte and Microglia Pathogenicity & Treat Progressive Multiple Sclerosis.”

■ **Dr. Haritha Desu** was awarded an endMS postdoctoral fellowship for her project: “Identifying mechanisms underlying T cell/oligodendrocyte interactions in MS: investigation into oligodendroglial ICAM-1 as a target for neuroprotection.”

■ **Dr. Sarah Donkers** received tenure, was promoted to associate professor, and was the selected recipient of the University of Saskatchewan’s *Outstanding New Researcher Award*. Dr. Donkers received an MS Canada Discovery grant, and the MSCanRehab Research Network, of which she is a member, was 1 of 9 teams in the world to receive an International Progressive MS Alliance innovation in wellbeing grant. (Nominated Principal Investigator: Dr. Lara Pilutti.)

■ **Dr. Rajiv Jain** is continuing his postdoctoral fellowship with Dr. V. Wee Yong at the University of Calgary. He is currently funded by an endMS postdoctoral fellowship. The focus of Rajiv’s post-doctoral fellowship is to look at how B cells interact with central nervous system elements to promote MS pathology.

■ **Dr. Hélène Jamann** gave birth last year to her second child, Cléopâtre. She will begin her residency in France in psychiatry in Rouen.

■ **Emily Kamma** is continuing her PhD in Dr. Jacqueline Quandt’s lab at the University of British Columbia. Her project focuses on characterizing the clinical and immunopathological alterations that may drive risk and disease progression in a new mouse model of progressive multiple sclerosis.

■ **Dr. Kaarina Kowalec** is an assistant professor at the University of Manitoba. She recently received funding from Brain Canada to look at brain atrophy and cognitive reserve in MS. She will examine how genetic factors, particularly polygenic scores, impact brain health and cognitive decline in people with MS.

■ **Wendy Lasisi** was awarded an endMS Doctoral Studentship for her project Investigating the role of sensorimotor integration in upper extremity dysfunction in MS.

■ **Dr. Citlali Márquez** is a senior scientist at the BC Centre for Disease Control-Public Health Laboratory, where she leads initiatives in serological surveillance, contributing to public health strategies and disease prevention efforts.

■ **Dr. Kyla McKay** is an assistant professor of Neuroepidemiology at the Karolinska Institutet, in Stockholm, Sweden. She leads a team of researchers in studies focused on the aetiology and long-term consequences of MS and other neuroinflammatory diseases.

■ **Dr. Evelyn Peelen** is head of research at the clinical-stage biopharmaceutical company, Immunic AG, in Munich, Germany.

■ **Dr. Julie Petrin** continues working at MS Canada as manager of impact and evaluation. She also volunteers her time to advance MS research and knowledge, when possible, through her many connections in the MS community, including coming full circle and being a SPRINT mentor this year.

■ **Dr. Jason Plemel** is continuing his research as a Canada Research Chair in Glial Neuroimmunology, and was just promoted to associate professor. As a former SPRINT and SPRINT mentor, he is excited to be co-hosting the 2025 endMS Summer School in Edmonton.

■ **Ateyeh Soroush** was awarded an endMS Doctoral Studentship for her project “Effects of low cortical oxygen level (hypoxia) on brain functional connectivity and cognitive impairment in individuals with multiple sclerosis.”

■ **Nataliya Tokarska** is currently completing her PhD dissertation titled “Acute intermittent hypoxia as a non-invasive therapy for the treatment of multiple sclerosis” under Dr. Valerie Verge at the University of Saskatchewan and plans to defend in December 2024.

■ **Karine Thai** is entering the 4th year of her PhD in Dr. Alexandre Prat’s lab, at the Université de Montréal, where she is continuing her project focused on investigating novel blood-based biomarkers in MS.

■ **Dr. Simon Thebault** is completing his endMS postdoctoral fellowship in Dr. Amit Bar-Or’s lab at University of Pennsylvania. In January 2025 he will start as a clinician scientist at McGill University where his lab will focus on translational aspects of protein and immune cell biomarkers in blood and CSF of patients with MS.

■ **Isabelle Tottenham** successfully defended her MSc thesis in September 2023, exploring a translational therapy for remyelination in an animal model of MS. She has spent the last year managing the Multiple Sclerosis Centre at the University of Alberta in Edmonton. In this role, she organized the U of Alberta’s MS Research Symposium, fostered donor and stakeholder relationships, and managed grant applications. She is now a first-year

medical student at the University of Alberta (‘28). She is excited to continue working in the MS field as an adjunct to her studies.

■ **Dr. Angela Wang** successfully defended her PhD in immunology at the University of Toronto.

■ **Emily Wuerch** is in the final year of her PhD program, where her research project focuses on enhancing phagocytosis and recycling of myelin debris. Following the completion of her PhD, she will be starting medical school at the University of Calgary in July 2025.

■ **Dr. Bettina Zierfuss** was awarded an endMS Postdoctoral Fellowship for her project: “Targeting mannose receptor C type 2 on encephalitogenic leukocytes in multiple sclerosis.”

SPRINT TEAM PUBLICATIONS

Congratulations to the following teams for these SPRINT project publications (SPRINTers’ names are in bold and mentors are in italics.):

■ **Tea, F., Groh, A.M.R., Lacey, C., Fakolade A.** “A scoping review assessing the usability of digital health technologies targeting people with multiple sclerosis.” *npj Digit. Med.* 7, 168 (2024). <https://doi.org/10.1038/s41746-024-01162-0>

■ **Desu, H., Sawicka KM., Wuerch E., Kitchin V., and Quandt JA.** “A rapid review of differences in cerebrospinal neurofilament light levels in clinical subtypes of progressive multiple sclerosis.” *by Front. Neurol.* 15:1382468. <https://www.frontiersin.org/journals/neurology/articles/10.3389/fneur.2024.1382468/full>

■ **Zierfuss B., Wang Z., Jackson AN., Moezzi D., Yong VW.** “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>

For Summer School and SPRINT application and program guidelines, please visit our website at: www.endmstrainingprogram.ca

If you are interested in becoming a SPRINT mentor or would like more information on the program, please contact:

Anik Schoenfeldt, Program Manager
endMS National Training Program
514-843-1442 | 1-877-288-2570
anik.schoenfeldt@affiliate.mcgill.ca

or

Dr. Christina Wolfson, Program Director
endMS National Training Program
514-934-1934 ext. 44739
christina.wolfson@mcgill.ca

The endMS National Training Program (NTP) is an initiative formed to accelerate discovery in the field of multiple sclerosis (MS) with aims to enhance knowledge and skills relevant to MS research, foster opportunities to conduct MS research in Canada, and increase intent among trainees to pursue a long term, established and productive research career in MS. The program has two main components: endMS Summer School and endMS Scholar Program for Researchers IN Training (SPRINT).

The Training Program is led by Program Director, Dr. Christina Wolfson and Co-Directors, Dr. Nathalie Arbour and Dr. Marcia Finlayson. The NTP is funded by a directed grant from MS Canada.

MS Canada



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