

# Virtual 2022 Event

## Lyme Disease Awareness

May 1<sup>st</sup>-31<sup>st</sup>, 2022

*Join us for our live presentations on Lyme disease and tick-borne disease topics scheduled throughout the month.*

*Please send your name and email to [Clydrn@gmail.com](mailto:Clydrn@gmail.com) and a ZOOM meeting link will be provided to allow you to view all presentations scheduled throughout the month. Thank you.*



CANADIAN LYME DISEASE  
RESEARCH NETWORK

# May is Lyme Disease Awareness Month... Go GREEN for Lyme!

Help take a bite out of Lyme disease. Show your support for Lyme disease by wearing green or a green face mask in May.

**Take part in our challenge:** wear green or a green face mask, take a photo, and share it with us to help spread awareness of Lyme disease. You can even send in photos or drawings that express Lyme Disease Awareness Month...be creative. All photos and drawings submitted will automatically be entered into a draw for 1 of 4 \$25 Starbucks gift cards. Draw will occur on May 31<sup>st</sup>, 2022. Please send you photos to [Clydrn@gmail.com](mailto:Clydrn@gmail.com) along with your name and email.

# WEEK 1 AGENDA

## **Monday, May 2<sup>nd</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Ticks from Humans in Alberta* - Dr. Daniel Gregson

## **Tuesday, May 3<sup>rd</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Urbanization, higher socioeconomic status, and residence in environmental risk areas associated with increased Lyme disease infection in Ontario, Canada: A case-control study* - Andreea Slatculescu (PhD Student)

## **Wednesday, May 4<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Lyme Carditis: Do I need to be checked?* - Dr. Adrian Baranchuk

## **Thursday, May 5<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Lyme disease and infection associated chronic illnesses* - Dr. John Aucott

## **Friday, May 6<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Invaluable Inheritance: Co-infection with multiple strains in the mother reduces the protective efficacy of the maternal antibody response in the offspring* - Alexandra Foley-Eby (PhD Student)

# WEEK 2 AGENDA

## **Monday, May 9<sup>th</sup>**

11:00 am-12:00 pm (EST)

### **Presentation**

*Lyme Disease Prevention: A summary and discussion of where we stand on Lyme Vaccines and other immune mediated approaches* - Dr. Mark Soloski

## **Tuesday, May 10<sup>th</sup>**

1:00 pm-2:00 pm (EST)

### **Presentation**

*Passive Tick Surveillance in BC: What we have learned so far* - Dr. Muhammad Morshed

## **Wednesday, May 11<sup>th</sup>**

1:00 pm-2:00 pm (EST)

### **Presentation**

*Pediatric Lyme arthritis: the next wave of Lyme disease in children?* - Dr. Elizabeth Stringer

## **Thursday, May 12<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*The Future of Lyme, Tick-borne Disease and Global Health Challenges in the 21<sup>st</sup> Century* - Dr. Richard Horowitz

## **Friday, May 13<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*The Canadian Lyme Sentinel Network (CaLSeN): results from a new surveillance initiative tracking tick-borne disease risk across Canada* - Dr. Katie Clow, Camille Guillot (PhD Student) & Dr. Patrick Leighton

# WEEK 3 AGENDA

## **Monday, May 16<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Morphometric and genetic variation in Ixodid ticks at an expanding range edge* - Damian Bourne (Master's Student)

## **Tuesday, May 17<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Lyme Carditis: A 2022 Update for Patients, Health Care Providers and Researchers* - Dr. Rachel Wamboldt (Research Fellow) & Dr. Chang (Nancy) Wang (Resident)

## **Wednesday, May 18<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Updates in the Pathogenesis of Borrelia burgdorferi* - Dr. Leona Gilbert

## **Thursday, May 19<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*In the Bush with Ticks: Using Indigenous Research Theory to Understand First Nations Experience of Lyme Disease in Ontario* - Elizabeth (Claire) Hiscock (PhD Student)

# WEEK 4 AGENDA

## **Tuesday, May 24<sup>th</sup>**

1:00 pm-2:00 pm (EST)

### **Presentation**

*Anaplasmosis and other less common tick-borne infections* - Dr. Gerald Evans

## **Wednesday, May 25<sup>th</sup>**

1:00 pm-2:00 pm (EST)

### **Presentation**

*Spatial and temporal patterns of the blacklegged tick (*Ixodes scapularis*) and Lyme disease in Ontario, Canada: Making a case for a One Health surveillance approach* - Cyril Akwo (PhD Student)

## **Thursday, May 26<sup>th</sup>**

12:00 pm-1:00 pm (EST)

### **Presentation**

*Handheld microbiome sequencing to detect, identify, and monitor tick-borne pathogens* - Dr. Sima Afsharnezhad (Post-Doctoral Fellow)

# EVENT WRAP-UP

## Monday, May 30<sup>th</sup>

12:00 pm-1:00 pm (EST)

### Presentation

*Co-creating a dialogue with patients, families and other stakeholders concerning Lyme disease* - Dr. Clara Juando-Prats & Dr. Janet Parsons

## Tuesday, May 31<sup>st</sup>

12:00 pm-1:00 pm (EST)

### Presentation + Draw

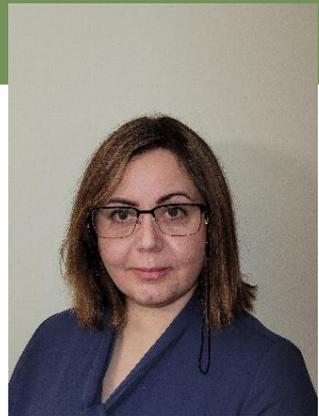
*Lyme Disease and Pregnancy: The Value of Research Partnerships* - Dr. Elizabeth Darling & Sue Faber

*Draw for 1 of 4 \$25 gift cards.*

A close-up photograph of a hand gently touching tall grass blades. The scene is set against a bright, golden sunset or sunrise, with the sun low on the horizon, creating a warm, glowing atmosphere. The background is softly blurred, showing more grass and a distant horizon line. A solid green horizontal bar is at the top of the image.

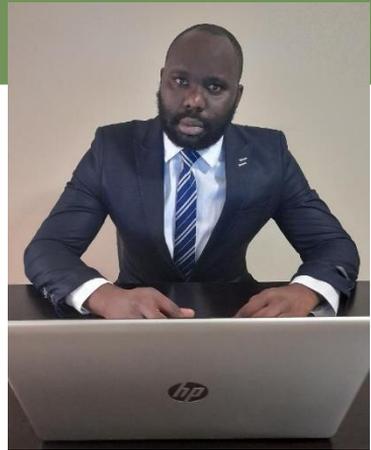
# ***Presenters***

## Dr. Sima Afsharnezhad



The tick microbiome plays a significant role in human health because it can carry a wide variety of bacteria and viruses, including *Borrelia burgdorferi* – the pathogen that causes Lyme disease. Rapid advances in DNA and RNA sequencing technology have enabled 'handheld' sequencers but field applications remain limited. In contrast to more conventional screening methods, handheld sequencers have the ability to screen all microorganisms within a tick specimen, allowing for simultaneous detection of endemic pathogens and discovery of new invaders. However, several barriers in laboratory methods, bioinformatics, and validation currently limit the usability of handheld sequencers for tick-borne disease in clinical and natural settings. As a member of the Colautti Lab at Queen's University, Dr. Sima Afsharnezhad is researching new techniques and informatics paradigms for identifying, quantifying, and characterizing the microbiome, as well as their changes in ticks lab. The long-term goal is to make handheld sequencers viable and cost-effective tool to detect, monitor, and discover pathogens in a variety of field settings. Dr. Afsharnezhad received her Ph.D. in Biochemistry from Tehran University in Iran, where she researched on molecular biology methods and bacteria-based nanoparticle production. In September 2020, she graduated from Queen's University with a graduate diploma in medical informatics. Beginning in January 2022, she has served as a Postdoctoral Fellow in the Department of Biology at Queen's University in Kingston, Ontario, Canada.

## Cyril Akwo



Cyril Akwo is a PhD candidate in Epidemiology and One Health in Dr. Katie Clow's Lab, in the Department of Population Medicine at the University of Guelph. He holds a Bachelor of Science in Microbiology and Medical Laboratory Technology and a Master of Science in Medical Microbiology and Parasitology from the University of Buea, Cameroon. He also holds a Bachelor of Applied Science in Public Health from Ryerson University Toronto. Cyril has research/teaching experience and an interest in vector-borne diseases, clinical microbiology, infectious disease epidemiology, and foodborne zoonosis. Before joining Dr. Clow's lab, he was a food pathogen Research Associate at the Animal Disease Research Lab of the Science Branch of CFIA in Ottawa. He later worked as an Assistant Public Health Inspector at the Region of Peel Public Health Service. His current research project aims to develop and evaluate a One Health approach to surveillance of ticks and tick-borne diseases in Canada. This project recognizes the intricate and complex relationship between human, animal, and environmental health. It seeks to explore the patterns and distribution of ticks and pathogens, focusing on the black-legged tick and Lyme disease.

## Dr. John Aucott



Dr. John Aucott is an Associate Professor of Medicine at Johns Hopkins University Medical School and the Director of the Johns Hopkins Lyme Disease Research Center. He is principal investigator for the SLICE studies of acute Lyme disease and post-treatment Lyme disease. His research interests center on the pathophysiology, diagnosis, and treatment of persistent illness after initial antibiotic treatment of Lyme disease and has resulted in over 40 peer reviewed publications. He is the program director for the Johns Hopkins Fellowship in Lyme and tickborne diseases. Dr. Aucott is an internationally recognized expert on Lyme disease and has served on groups sponsored by the Institute of Medicine, the Canadian Institutes of Health Research, and the U.S. Department of Health and Human Services. He is the past chair of the U.S. Department of Health and Human Services Tick-Borne Disease Working Group.

## Dr. Adrian Baranchuk



Dr. Adrian Baranchuk, a native of Buenos Aires, Argentina, obtained his medical degree from the University of Buenos Aires in 1990. After qualifying in Internal Medicine and Cardiology in 1995, he completed a Clinical Fellowship in Cardiac Electrophysiology in 1997. In 2002 he immigrated to Spain for a Research Fellow and in 2003 was appointed as a Clinical Fellow in Electrophysiology at McMaster University. Dr. Baranchuk joined Queen's University in 2006. Dr. Baranchuk is currently Professor in the Department of Medicine, Division of Cardiology at Queen's University with cross appointments in the Department of Biomedical & Molecular Sciences at Queen's University and Department of Medicine at Kingston Health Sciences Centre. He also founded the Electrophysiology Training Program at Queen's University in 2007. Dr. Baranchuk is currently the Editor-in-Chief of the Journal of Electrocardiology and Journal of the American College of Cardiology in Spanish. He is also the President-Elect of the Interamerican Society of Cardiology and is the Vice President of the International Society of Holter and Non-invasive Electrocardiology.

## Damian Bourne



Damian is a first year Master of Science student at Queen's University under the Department of Biology. His research focuses on understanding the molecular and population genetics of ticks within Eastern Ontario. Through the use of Genotyping-in-Thousands by sequencing (GT-Seq) and high-throughput sequencing, he hopes to better understand tick species diversity and population dynamics.

## Dr. Katie Clow



Dr. Katie Clow is an Assistant Professor in One Health in the Department of Population Medicine at the Ontario Veterinary College at the University of Guelph. Her research focuses on the ecology and epidemiology of vector-borne and zoonotic diseases. She also conducts research more broadly on One Health, including pedagogy and community-level applications. She holds both a Doctor of Veterinary Medicine degree (OVC, 2011) and PhD (Pathobiology, 2017). Dr. Clow has worked in private small animal practice as well as at the national and international level in One Health through internships at the Canadian Food Inspection Agency, Department of Food Safety, Zoonoses and Foodborne Disease at the World Health Organization, and the Global Disease Detection Branch of the Centers for Disease Control and Prevention. She regularly collaborates with public health professionals and veterinarians in private practice and industry.

## Dr. Elizabeth Darling



Dr. Elizabeth Darling is a scientist at the McMaster Midwifery Research Centre, Director/Assistant Dean of the Midwifery Education Program of the Faculty of Health Sciences, Associate Professor in the Department of Obstetrics and Gynecology, Adjunct Scientist at the Institute for Clinical Evaluative Sciences, and an associate in the Department of Health Research Methods, Evidence, and Impact at McMaster University. Her research interests include perinatal health surveillance, clinical epidemiology, access to care, and maternal-newborn health services research. Dr. Darling has been involved in the design and statistical analysis of large population-based cohorts and has expertise in both quantitative and qualitative methods. She holds a CIHR Early Career Investigator Award in Maternal, Reproductive, Child and Youth Health. She is experienced in developing patient recruitment strategies for research engaging health service users, health care providers, and key informants and stakeholders, and in engaging these groups throughout the research process.

## Dr. Gerald Evans



Dr. Gerald Evans is the Chair of the Division of Infectious Diseases and a Professor in the Departments of Medicine, Biomedical & Molecular Sciences, and Pathology & Molecular Medicine at Queen's University and an attending physician at Kingston Health Sciences Centre. Dr. Evans has been Medical Director of Infection Prevention & Control at Kingston Health Sciences Centre and Providence Care Hospital since 2011. He is the Editor-in-Chief of the Official Journal of the Association of Microbiology and Infectious Disease Canada.

## Sue Faber



Sue Faber is a Registered Nurse (BScN) and Co-founder and President of LymeHope, a Canadian not-for-profit organization. Sue's specific area of expertise and research is in the compilation and analysis of the literature that exists on maternal-fetal transmission of Lyme and congenital Lyme borreliosis; amplifying, supporting, and powering urgent research initiatives to investigate this alternate mode of transmission with the ultimate goal of opening new doors to ensure that children and families affected are able to access appropriate care, treatment, and support. Sue is an active member of the Registered Nurses Association of Ontario (RNAO) and 2019 RNAO HUB Fellowship award recipient. Sue has spoken at various conferences/webinars on maternal-fetal transmission of Lyme disease and most recently served as a subcommittee member on the current (2022) US Federal Health & Human Services Tick-Borne Disease Working Group Clinical Presentation and Pathogenesis Subcommittee. Sue is honoured to collaborate with colleagues from McMaster Midwifery Research Centre in new ground-breaking research on Lyme disease and Pregnancy and is firmly committed to transparent and collaborative partnerships with governments, academia, research institutions, healthcare colleagues, and industry stakeholders, to collectively identify challenges, knowledge gaps, and fresh opportunities, to examine and develop transformative health policy, best practice guidelines, and research priorities, which are anchored in patient voice, values, and priorities.

## Alexandra Foley-Eby



Alexandra completed her Bachelor of Science in Biology at Dalhousie University in Halifax, Nova Scotia, where in her fourth year she completed an Honour's project with Dr. Tatiana Rossolimo. This project focussed on the prevalence of *Rickettsia* and *Bartonella* species in the local flea population. Fleas were a bit of an oddity in the lab which generally focussed on ticks and Lyme disease, and it was because of this connection that she pursued a Master of Science in Biology at Mount Allison University in Sackville New Brunswick, under the supervision of Dr. Vett Lloyd. Dr. Lloyd is renowned for her research on ticks and Lyme disease, and for being a passionate supporter of patient-driven research. In her lab, Alexandra studied the prevalence of canine *Borrelia* infections on Prince Edward Island, using these data to estimate human prevalence and potential under-reporting of the disease. After her Master's degree, Alexandra worked for Dr. Lloyd as a copy editor and laboratory assistant, and for a private tick-testing company named Geneticks as their Director of Operations Atlantic Canada. In 2020 she made the decision to return to school and complete her PhD at the Western College of Veterinary Medicine at the University of Saskatchewan in Saskatoon. For her PhD she is supervised by Dr. Maarten Voordouw, whose primary interests lie in the ecology of the Lyme disease bacterium and the biotic and abiotic factors that contribute to strain composition. In this position Alexandra has been able to combine her interests in veterinary medicine and the interests of her supervisor to both answer and raise questions regarding the role of maternal antibodies in the ecology of *Borrelia*. Her talk today will focus on the effects of co-infection with multiple strains of *Borrelia burgdorferi* in mother mice on the maternal antibody efficacy in the offspring.

## Dr. Leona Gilbert



Dr. Leona Gilbert is a Docent of Cell and Molecular Biology and the CEO of Te?ted Oy, a university spinoff company that has a goal to get the patient tested so they can be treated and recover quicker. She has a doctorate in biotechnology and a very long experience in bio-innovation and bio-business. She has supervised numerous PhD, MSc and BSc students and her various peer-reviewed articles span turning research results into translational value with developing novel delivery vectors as well as diagnostic lab-on-chip platforms. In addition, Dr. Gilbert's publications also demonstrate the thorough investigation of how a common virus or bacterium can contribute to autoimmune diseases. Another highlight in these publications is the demonstration of a multi-disciplinary background and collaborative efforts between clinicians, microbiologists, diagnostic developers, nano-scientists, physicists, and engineers. Dr. Gilbert's research initiatives into complete diagnostic platforms and clinical profiling of patients for tick-borne and autoimmune diseases will allow a better understanding of how chronic conditions could be established with infectious pathogens.

## **Dr. Daniel Gregson**



Dr. Daniel Gregson is an Infectious Disease Physician and Medical Microbiologist in Calgary and an Associate Professor at the Cummings School of Medicine. He trained in Toronto and spent 10 years in London, Ontario before moving to Calgary, Alberta. His research interests are primarily focused on the incidence and outcomes from bacteremia. He is a prior President of the Association of Medical Microbiology and Infectious Disease Canada.

## Camille Guillot



Camille Guillot graduated from Edinburgh Medical School in 2016, after completing a BSc in zoology. She returned to Canada to undertake a PhD in epidemiology at the faculty of veterinary medicine, Université de Montréal, working on surveillance of Lyme disease. Whilst completing her PhD, she began a residency in public health and preventative medicine at the Université de Sherbrooke. She is particularly interested in surveillance of zoonoses using a One Health approach.

## Elizabeth (Claire) Hiscock



Claire is a settler of Irish ancestry, born in Toronto and raised in Texas. She recently completed a Masters in Public Health program with a specialization in Indigenous health at the University of Toronto. Claire is currently a Ph.D. student at the University of Toronto's Rehabilitation Sciences Institute. She is a Graduate Trainee at St. Michael's Hospital within CLyDRN. Her doctoral research will focus on Indigenous health and Lyme disease. Claire has a passion for learning about the ways we come to know. She loves canoe tripping and swimming in lakes.

## Dr. Richard Horowitz



Dr. Richard Horowitz is a board-certified internist and medical director of the Hudson Valley Healing Arts Center, an integrative medical center specializing in the treatment of Lyme and other tick-borne diseases. He has treated over 13,000 Lyme and tick-borne disease patients in the last 30 years and is one of the founding members and past president elect of ILADS. Dr. Horowitz has published multiple peer-reviewed articles on effective diagnostic and treatment options for Lyme and co-infections and served as a member of the HHS Tick-borne Disease Working Group in 2017-2018. He was also co-chair of the HHS Tick-borne Co-infection subcommittee which gave recommendations to Congress on the prevention, diagnosis, and treatment of tick-borne illness, and he was recently elected to the NYS Department of Health Tick-borne Disease Working Group. For dedicating his life to helping those stricken with this devastating illness, he has been awarded the Humanitarian of the Year award by the Turn the Corner Foundation and awards from Project Lyme. Dr. Horowitz also published the first peer reviewed article in the world literature on the role of glutathione deficiency in COVID-19, which has now been cited over 150 times, and is the author of two best-selling books on Lyme disease, *Why Can't I Get Better?* and *How Can I Get Better?* He has also now released his first science fiction/climate change novel, *Starseed R/evolution, The Awakening*, which contains innovative scientific solutions for our climate crisis.

## **Dr. Clara Juando-Prats & Dr. Janet Parsons**



### **Clara Juando-Prats, PhD**

A mother of two and a settler of Catalan origin living in T'karonto. An investigator and lead of the qualitative health research and patient engagement team at the Applied Health Research Center, St. Michael's Hospital; a nurse by background, an assistant professor at the Dalla Lana School of Public Health, and a fellow at the Center for Critical Qualitative Health Research at the University of Toronto. I am an arts-based critical health researcher, a passionate educator, and a social scientist specializing in community and patient engagement and mobilization, working with populations navigating the periphery of power in society, particularly in the areas of parenting at a young age while experiencing homelessness, living in a low-income, new-immigrants and BIPOC. In my work, I have been developing methodological approaches based on creative, decolonizing, participatory community research, post-anthropocentrism and post-humanism. In particular, I have applied these to my research work with young parents and with communities of patients who suffered epistemic injustice in clinical settings, in clinical research and policy implementation (i.e., individuals with Lyme Disease, BIPOC and new immigrants, Dravet syndrome, and XLMTM disorder).

## **Janet Parsons, PhD**

Dr. Janet Parsons is a social scientist and qualitative researcher with expertise in health services and policy research, health and social equity, patient and community engagement, as well as arts-based research and knowledge translation. She is a Research Scientist at the Li Ka Shing Knowledge Institute of St. Michael's Hospital (Unity Health Toronto) and an Associate Professor in the Department of Physical Therapy, the Rehabilitation Sciences Institute and the Institute for Health Policy Management & Evaluation at the University of Toronto. A physiotherapist by training, she practiced clinically for 18 years in acute care settings. She enjoys using visual and storytelling approaches to co-create research, and she co-invented the Brokered Dialogue method with her colleague Dr. James Lavery (Emory University, Atlanta).

## Dr. Patrick Leighton



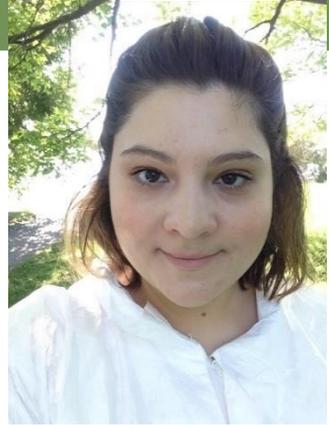
Dr. Patrick Leighton is Associate Professor of Epidemiology and Public Health at the Faculty of Veterinary Medicine, University of Montréal, and Director of the Canadian Lyme Disease Research Network (CLyDRN). His research focuses on the ecology and epidemiology of zoonotic diseases, with an emphasis on vector-borne diseases and the use of epidemiological models to predict future disease risk. Over the past decade he has used surveillance and modelling to better understand the geographic spread of Lyme disease risk, and the impact of climate warming on the emergence of tick-borne diseases in Canada.

## Dr. Muhammad Morshed



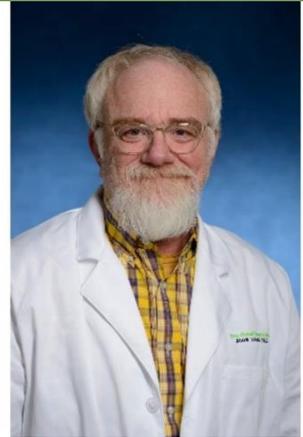
Dr. Muhammad Morshed is a public health clinical microbiologist at the BCCDC Public Health Laboratory in British Columbia, Vancouver, Canada, where he is serving as a Head of the Zoonotic and Emerging Pathogens section. He is also a Clinical Professor in the Department of Pathology and Laboratory Medicine at the University of British Columbia. Dr Morshed is internationally known for his expertise in vector-borne and zoonotic disease research. His area of interest is spirochaetal disease such as Lyme disease and syphilis. His laboratory is engaged in tick surveillance and tick-borne disease since 1997. He has added significantly to the general knowledge and understanding of these diseases with more than 130 refereed scientific publications. On his recognition, Dr. Morshed received an Excellence in Clinical Services Award from UBC's Department of Pathology & Laboratory Medicine in 2016, RBC Top 25 Canadian Immigrant Awards in 2017, Distinguished Microbiologists Award by the Canadian College of Microbiologists in 2018 and become elected as an Expatriate Fellow of the Bangladesh Academic of Sciences in 2020.

## Andreea Slatculescu



Andreea Slatculescu is a Doctoral candidate in Epidemiology at the University of Ottawa, with a previous Master of Science degree in Microbiology and Immunology and a Graduate Diploma in Population Health Risk Assessment and Management. Her doctoral thesis focuses on interdisciplinary methods to study the spatial and molecular epidemiology of Lyme disease and other tick-borne illnesses in eastern Ontario.

## Dr. Mark Soloski



Mark J. Soloski, Ph.D., is currently a Professor of Medicine in the Division of Rheumatology at the Johns Hopkins University School of Medicine and he holds joint appointments in the School of Medicine's Departments of Pathology and Molecular Biology and Genetics as well as the Department of Molecular Microbiology and Immunology in the School of Public Health. He is the Co-Director for Basic Research for the Johns Hopkins Lyme Disease Research Center. Dr. Soloski received his Ph.D. in Microbiology from Rutgers, the State University of New Jersey and then completed post-doctoral training in Immunology at the University of Texas Health Science Center at Dallas, Southwestern Medical School prior to joining the faculty at the Johns Hopkins School of Medicine in 1983. The overarching theme of his research is understanding how infection can lead to long-term persistent symptoms. At this time, working with John Aucott, M.D. the Director of the Lyme Disease Research Center at Johns Hopkins, he is focused on understanding how the immune system contributes to the symptoms and severity of Human Lyme disease. He is very active and excited about the teaching of students, at all levels, about how the immune system evolved, how it protects us from infection and how it can contribute to disease.

## Dr. Elizabeth Stringer



Dr. Elizabeth Stringer is an Associate Professor of Pediatrics and Medicine at Dalhousie University in Halifax, Nova Scotia. She is a pediatric rheumatologist and clinical researcher at IWK Health, the tertiary care pediatric hospital for the Maritime provinces. Dr. Stringer completed her medical training and pediatric residency at Dalhousie University, followed by 3 years in Toronto completing her pediatric rheumatology fellowship and a Master of Science degree in Clinical Epidemiology. Dr. Stringer joined the Division of Pediatric Rheumatology in 2008. Dr. Stringer's interest in Lyme disease began early in her career when the Pediatric Rheumatology Clinic at the IWK Health Centre began seeing increasing numbers of children with Lyme arthritis. She published a study describing the clinic's early observations of outcomes of Lyme arthritis. Her present work involves collaboration with orthopedic, infection disease and microbiology colleagues aimed at earlier diagnosis of Lyme arthritis, particularly differentiating Lyme arthritis from septic arthritis. Dr. Stringer is also the Principal Investigator for the Nova Scotia arm of a number of studies within the CLyDRN network.

## **Dr. Rachel Wamboldt**



Dr. Rachel Wamboldt is a cardiology fellow from Queen's University. She completed her medical training at Norwich Medical School in the United Kingdom followed by her internal medicine residency at Queen's University. Her interests include clinical cardiology, Lyme carditis, and women's cardiovascular wellness.

## Dr. Chang (Nancy) Wang



Dr. Chang (Nancy) Wang is an internal medicine resident and Master of Epidemiology candidate at Queen's University through the Clinical Investigator Program. Her current thesis focuses on determining patient and provider factors associated with long-term outcomes in patients with implantable cardioverter-defibrillators. Nancy's other clinical interests include Lyme carditis, pacemakers, and women's health. Nancy is passionate about cardiovascular medicine and health services research.

## Future Lyme Disease Events

Fall 2022

CLyDRN Members Annual General Meeting

May 2023

Lyme Disease Awareness Month Events

## Keep in Touch...

CLyDRN: [Clydrn@gmail.com](mailto:Clydrn@gmail.com)

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