



# The past is prologue: Investigating the prodrome across demyelinating diseases

### NEUROSCIENCE GRAND ROUNDS

SPEAKER

Dr. Dalia Rotstein, MD, MPH

Assistant Professor, Department of Medicine, University of Toronto, St. Michael's Hospital, Barlo MS Centre

DATE

Friday, April 19th, 2024

9:00 AM - 10:00 AM

LOCATION

Psychiatry Bldg. 2nd Floor Rm PX236/238

## BIO

Dr. Dalia Rotstein is an assistant professor of medicine at the University of Toronto and neurologist specialized in multiple sclerosis (MS) and other demyelinating diseases. Her research is focused on the epidemiology of multiple sclerosis, neuromyelitis optica spectrum disorder (NMOSD), and MOG antibody associated disease (MOGAD). She has a particular interest in the roles of the prodrome, sex, ethnicity, and migration in these conditions. She is the Principal Investigator for CANOPTICS, the first Canadian national prospective study to investigate adults with NMOSD, MOGAD, and other atypical demyelinating conditions.

Zoom Link: https://us06web.zoom.us/j/83267302150

Meeting ID: 832 6730 2150 Passcode: 748222

# ABSTRACT

Prodromal phases have become well-recognized in many neurologic diseases including multiple sclerosis, Parkinson's disease, and Alzheimer's disease. Knowledge of the prodrome can provide critical insights into disease pathogenesis and approaches to disease prevention. Recent evidence has suggested the Epstein Barr Virus infection is a necessary but not sufficient antecedent event for the development of MS. Using Epstein Barr Virus infection or infectious mononucleosis as an anchor, we can gain a better understanding of risk factors for developing MS and how the timeline from EBV infection to MS, including onset of the prodrome, may vary by characteristics such as age, sex, socioeconomic status and comorbid conditions. There has been no systematic investigation to date into the possibility of a prodromal phase in two other demyelinating conditions: NMOSD and MOGAD. Our data support the existence of a prodromal phase in NMOSD but not MOGAD. These findings open up new avenues for studying NMOSD pathogenesis and raise the possibility that NMOSD patients could be identified and treated before the first disabling attack occurs.

## OBJECTIVES

- 1. Outline existing knowledge of the multiple sclerosis (MS) prodrome.
- 2. Discuss the timeline from Epstein Barr Virus infection to the development of MS and risk factors for clinical evolution to MS.
- 3. Describe novel evidence evaluating the possibility of a prodrome in two other demyelinating conditions, NMOSD and MOGAD.







