# Advancing Research In Rare Neurodegenerative Diseases: A Focus On Multiple System Atrophy

## January 15

### Tuesday, 12:30 pm

Weekly Colloquium

Billings Building
Rosedale Conference Room

**Speaker: Miriam Sklerov, M.D., M.Sc.**
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Movement Disorders Center
Director, UNC CurePSP Center of Care
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**Hosts:**
**Avrielle Rykman Peltz, M.A., OTR/L**
**Tomoko Kitago, M.D.**

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## Abstract

**Background and Purpose:** Research in rare neurodegenerative diseases is often limited and difficult to undertake for many reasons. We will explore some of these challenges using multiple system atrophy as a model. Multiple system atrophy (MSA) is a devastating neurodegenerative condition that bears many similarities with Parkinson's disease. Clinical trials in this disease have been historically limited despite the lack of effective available treatments.

**Objectives:**

1. To provide an educational overview of multiple system atrophy (MSA)
2. To discuss the importance of biomarkers in MSA research
3. To explore the potential use of neuroimaging as a tool in MSA research

**Methods:** We will first learn about the pathophysiology and epidemiology of MSA to emphasize the importance of research in this disease. This will lead us to a discussion on the current obstacles we face in this area of research, as well as advances that may aid our endeavors.

**Conclusions:** Neuroimaging has provided a window into our knowledge of MSA and holds promise to become a useful marker of disease in this and other neurodegenerative conditions.

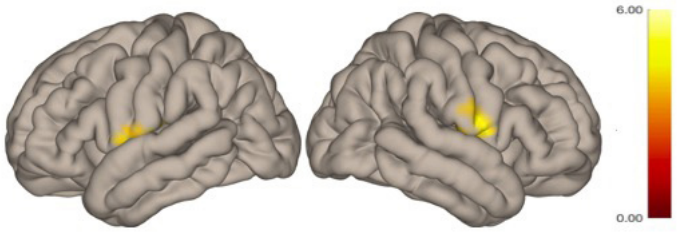


**Figure 1: Significant differences between HTH functional connectivity between MSA and PD is most pronounced in the bilateral insular cortices**

Sklerov M, Browner N, Drazheva D, Dayan E. Distinguishing multiple system atrophy and Parkinson's disease using resting state functional MRI: a pilot study. American Autonomic Society meeting October 2018, Newport Beach, CA

Sklerov M, Dayan E, Browner N. Functional neuroimaging of the central autonomic network: recent developments and clinical implications. Clin Auton Res. 2018 Nov 23 (Epub ahead of print).

Dayan E, Sklerov M, Browner N. Disrupted hypothalamic functional connectivity in patients with PD and autonomic dysfunction. Neurology 2018 Jun 5;90(23):e2051-e2058.

Sklerov, M., Kang, U. J., Liong, C., et al. Frequency of GBA Variants in Autopsy-proven Multiple System Atrophy. Movement disorders clinical practice, 4(4) (2017), 574-581.

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