

Centre for Heart Lung Innovation Research in Progress (R.I.P.)



Identification of in vivo proteolytic fragments of TDP-43 specific to frontotemporal lobar degeneration with TDP-43 inclusions

Lauren Forgrave
PhD Candidate
Dr. Mari DeMarco

Monday, Mar 21st 2021 9:00 – 10:00 a.m.

Zoom Video Conference (Meeting ID: 693 1997 7044; Passcode: 030679)

"Frontotemporal dementia (FTD) is the most common dementia under the age of 60. Doctors highly desire markers that identify FTD as it is difficult to distinguish FTD from related dementias. TDP-43 is the most common disease-associated-protein in FTD, and modifications of TDP-43 could be used to identify FTD; however, the structure of modified-TDP-43 remains unknown. With this in mind, we performed high resolution mass spectrometry (HRMS) analysis of human brain tissue from cases of FTD, related dementias and unaffected controls to identify modified-TDP-43 unique to FTD. HRMS revealed concentrations of modified-TDP-43 could separate FTD from related dementias and controls. This is the largest reported proteomics study to date on FTD, containing a range of controls and providing supporting evidence for identified modifications. Clarity and agreement on the identity of modified-TDP-43 in FTD will be helpful in advancing diagnostic and drug discovery efforts for FTD"

This event is a Self-Approved Group Learning Activity as defined by the Maintenance Certification Program of the Royal College of Physicians and Surgeons of Canada





