

Systems Biology of Tauopathy

ABSTRACT

Tauopathies are a heterogeneous class of neurodegenerative disorders that exhibit a common pathological hallmark: the abnormal aggregation of tau protein inside neuronal and/or glial cells in the brain. To better understand the relationship between disease and tau Post-Translational Modifications (PTMs), we developed quantitative proteomics platform that provides global proteomic data and detailed information about tau using the FLEXITau assay. FLEXITau is a mass spectrometry (MS)-based targeted method that precisely measures the tau PTM profile and provides absolute quantification for tau. We analyzed a large set of post-mortem brain samples [BA39 region] of over 150 samples, covering various tauopathies including Alzheimer's disease (AD), Progressive Supranuclear Palsy (PSP), Pick's Disease (PiD), corticobasal degeneration (CBD) as well as age matched non-demented controls using both FLEXITau and unbiased global proteomics on various biochemical fractions.

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**THURSDAY,
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2:00pm - 3:00pm

John Morgan Class of 62 Auditorium