DukeNUS Medical School

Signature Seminar Series

The Parkinson's Puzzle: Unraveling Mysteries, Inspiring Solutions

ABOUT THE LECTURE

Parkinson's disease (PD) is due, in part, to the progressive loss of dopamine neurons in the substantia nigra pars compacta, which leads to bradykinesia, rigidity, rest tremor and postural instability. Degeneration of other neuronal populations and/or neuronal dysfunction due to the accumulation and aggregation of alpha-synuclein, the major protein constituent of Lewy Bodies and Lewy Neurites leads to other clinical features including autonomic dysfunction, anxiety, depression, abnormalities of sleep, cognitive impairment, among others. Fresh insights into the pathogenesis of PD have come from understanding the role of pathologic alpha-synuclein and the contribution of genetics to the molecular causes of PD. Understanding the molecular mechanisms of cell-to-cell transmission of pathologic alpha-synuclein, mitochondrial quality control, microglial and astrocyte activation and mechanisms of cell death are providing clues to disease pathways that result in PD and offer disease modifying therapies for this common age-related progressive neurodegenerative disorder.

Speaker: **Prof Ted Dawson**
Leonard and Madlyn Abramson Professor of Neurodegenerative Diseases
Institute for Cell Engineering
Johns Hopkins University



Host: **Dr Cao Mian**
Assistant Professor
Neuroscience and Behavioural Disorders Programme
Duke-NUS Medical School

Date: **Thursday, 4 April 2024**

Time: **12.00 PM - 1.00 PM**
(Light refreshments will be served at 11.30 AM)

Venue: **Duke-NUS Medical School**
Amphitheatre, Level 2

Contact Person: **Ms Kathleen Chan (kathleen.chan@duke-nus.edu.sg)**
Duke-NUS Research Affairs Department

ABOUT THE SPEAKER

Dr. Dawson's laboratory focuses on neurodegenerative diseases. He pioneered the role of nitric oxide and Parthanatos in neuronal injury. His laboratory has made important discoveries on how neurons die in genetic and sporadic models of Parkinson's disease (PD). Dr. Dawson's discoveries are enabling clinical strategies for disease modifying therapies for PD and neurodegenerative diseases. He is a fellow of the National Academy of Inventors and a member of the National Academy of Medicine.

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