Protein Misfolding Diseases and Neurodegeneration: From Experimental Approach to Clinical Therapy Series

October 5, 2022 - October 25, 2023
Online via Zoom

Course Director

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Overall Objectives:

At the end of this activity, participants will:

① Identify the risk factors and patterns of onset of neurodegenerative diseases

② Demonstrate an understanding of the mechanisms of the development of the most common neurodegenerative diseases

③ List the latest developments in the field of diagnosis and treatment of neurodegenerative diseases

④ Recognize the emerged importance of artificial intelligence in neurodegenerative diseases diagnosis

⑤ Recognize the associations between physical activity, sleep and cognitive function in older adults

Target Audience:

Physicians, Dentists, Allied Health Practitioners, Nurses, Pharmacists, Students, Researchers, Educators

Register Here

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Agenda

Date/Time	Topic	Session Learning Objectives	Speaker
October 5, 2022 5:00 pm – 6:15 pm (Including Q&A: 5:50 - 6:15 pm)	The Molecular Basis of Neurodegenerative Diseases: From Bench to Bedside	• Discuss the role of protein aggregation in neurodegeneration • Identify molecular alterations in synucleinopathies • Define the targets for therapeutic intervention in neurodegenerative diseases	**Dr. Tiago Outeiro**
October 19, 2022 5:00 pm – 6:15 pm (Including Q&A: 5:50 - 6:15 pm)	Disease Modification in Parkinson Disease: An Update	• Discuss the mechanisms of neurodegeneration in Parkinson disease and the role of genes and environment • Identify the biological, imaging and clinical biomarkers • Outline the current status of disease modifying studies	**Dr. Angelo Antonini**
January 18, 2023 11.30 am – 12:45 pm (Including Q&A: 12:20 - 12:45 pm)	Late Onset (Sporadic) Alzheimer's Disease: Caused by Defective Innate Immunity and Treated with Adaptive Immunity	• Discuss where and when does AD start. • Explain if the default mode network, synaptic plasticity, and the normal function of APP involved in ADE • Explain the molecular species of Aβ cause synaptic degeneration • Explain if the impaired innate immunity is responsible for failure of Aβ clearance • Outline the biomarker cut points of normality vs the preclinical, prodromal, and clinical stages of AD • Define the best disease modifying therapeutic strategies for AD	**Dr. Colin Masters**
February 22, 2023 11.30 am – 12:45 pm (Including Q&A: 12:20 - 12:45 pm)	How Lifestyle Shapes the Brain: Associations between Physical Activity, Sleep, Beta-amyloid and Cognitive Function in Older Adults	• Discuss the associations between physical activity, sleep and cognitive function in older adults	**Dr. Hamid Sohrabi**
March 22, 2023 5:00 pm – 6:15 pm (Including Q&A: 5:50 - 6:15 pm)	Genetic Synucleinopathies: A Window to Idiopathic Parkinson's Disease?	• Discuss the types of genetic synucleinopathies. • Discuss the clinical picture of genetic synucleinopathies • Discuss the biomarker profile of PD patients with genetic synuceinopathies • Discuss the imaging profile of genetic synucleinopathies • Discuss similarities and differences between genetic synucleinopathies and iPD	**Dr. Leonidas Stefanis**
April 12, 2023 2:00 pm – 3:15 pm (Including Q&A: 2:50 - 3:15 pm)	The Parkinson Disease: A Local Prospective	• Define the key terminologies related to movement disorders • Compare hyperkinetic Vs hypokinetic disorders • Discuss the etiology and risk factors causing Parkinson's disease • Explain the clinical features, investigations, differential diagnosis and management of Parkinson's disease	**Dr. Gholam Redha Adeli**
May 24, 2023 5:00 pm – 6:15 pm (Including Q&A: 5:50 - 6:15 pm)	Intrinsically Disordered Proteins in Human Diseases	• Explain how the intrinsically disordered proteins have specific features and are predictable • Explain how intrinsic disorder is highly abundant in various proteomes especially in their signaling proteins • Explain how intrinsically disordered proteins have specific functions and are tightly controlled in the norm • Explain how dysregulation of these proteins often leads to various diseases and explain how many disease-related proteins are disordered • Explain how disordered proteins represent attractive but challenging drug targets	**Dr. Vladimir Uversky**
June 21, 2023 5:00 pm – 6:15 pm (Including Q&A: 5:50 - 6:15 pm)	Current State of Biomarkers for the Early Detection of Alzheimer's Disease	• Recognize and list the latest developments in the field of diagnosis and treatment of neurodegenerative diseases • Recognize the current state of biomarkers for the early detection of Alzheimer's disease	**Dr. Michael Schöll**
September 20, 2023 5:00 pm – 6:15 pm (Including Q&A: 5:50 - 6:15 pm)	Why Do Clinical Trials for Neurodegenerative Diseases Keep Failing?	• Explain the FDA position on end points in clinical trials of neurodegenerative diseases • Identify the need for better end-points in clinical trials of neurodegenerative diseases • Use examples in diabetic neuropathy and dementia of failed trials • Identify corneal confocal microscopy as a novel end-point in clinical studies of neurodegenerative disease	**Dr. Rayaz Ahmed Malik**
October 25, 2023 5:00 pm – 6:15 pm	Cornell Neurodegenerative Disease: From Bench to Bedside Panel Discussion (Including Q&A)	TBC	**Drs. Ali Chaari, Tiago Outeiro, Rayaz Ahmed Malik, Vladimir Uversky, Angelo Antonini and Michael Schöll**