Alzheimer's disease: challenges and opportunities
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Abstract
Welcome to this Micro-Seminar course on Alzheimer's disease. 50 million people worldwide now live with Alzheimer's disease and other forms of dementia. Unfortunately, no effective therapies exist today. In this class, we will first go over the history of this disease, explore its etiology, and understand how it affects the brain functions including memory and emotion. Students will learn the most common signs of Alzheimer's disease, which make it different from normal aging. By the end of this course, they will understand how it is clinically diagnosed and classified by different biomarkers and tests. More importantly, they will also obtain substantial knowledge regarding different risk factors for the disease, including environmental and genetic factors. We will also discuss the challenges in finding a cure for the disease, as well as most recent advance in research and new opportunities in drug discovery.

Faculty Biography
Dr Zhao is an assistant professor of Physiology and Neuroscience in the Zilkha Neurogenetic Institute, who devotes himself to the journey of fighting Alzheimer's and other neurodegenerative diseases. He is keen to understand the functions of Alzheimer's risk genes in our central nervous system. His research objective is to explore the genetic, molecular and cellular mechanisms of neurodegeneration in Alzheimer's disease, understand the crosstalk between the components of the neurovascular unit in health and during pathogenesis, and discover new approaches to restore the neurovascular and neuroimmune functions for the treatment of Alzheimer's and other neurodegenerative diseases.