

UTHealth Houston Neuroscience Research Center
and
UTHealth Houston Graduate School of Biomedical Sciences
Current Topics in the Neurobiology of Disease - GS14 1021

New Developments in Dementia Prevention and Research

Director: John Byrne, PhD

Course Description

This course is an integrated approach to neurological diseases, which includes background information as well the diagnosis, the treatment, and the biological mechanisms of the diseases under study. The topic for Fall 2026 is “New Developments in Dementia Prevention and Research.” This course will investigate the complex biological, clinical, and societal dimensions of Alzheimer’s disease and related dementias. Through a series of lectures, speakers will explore the topics of genetic risk factors, microglia, autophagy, systemic inflammation, and anti-viral vaccinations as they relate to dementia onset and delayed progression. The course also adopts a clinical perspective by exploring advanced neuroimaging techniques, emerging therapeutic interventions, and community approaches to brain health education. The curriculum concludes with a focus on dementia prevention using evidence-based approaches, digital technologies for personalized support, and explores the impact of social networks and nutrition.

Lectures will be given by leading experts in the field from UTHealth Houston, Baylor College of Medicine, and Houston Methodist Research Institute.

This course is open to graduate students, medical students, residents and postdoctoral fellows.

Lecture Time and Location

Tuesdays, September 1 through December 15, 2026

12:00 p.m. – 1:00 p.m.

UTHealth Houston McGovern Medical School MSB 7.037

Virtual option available to students from the schools of Public Health, Nursing, Biomedical Informatics, Behavioral Health Sciences, Dentistry, and Public Health

Course Requirements

Attendance

Course Director: John Byrne, PhD, Director, UTHealth Houston Neuroscience Research Center

NRC and Scholarly Concentration Contact: Anne Hart, PhD; Anne.Hart@uth.tmc.edu

UTHealth Neuroscience Research Center
Current Topics in the Neurobiology of Disease - GS14 1021
Fall 2026

New Developments in Dementia Prevention and Research

Tuesday 12:00 p.m. – 1:00 p.m. in MSB 7.037

Open to graduate and medical students, postdoctoral fellows and residents.

Date	Speaker	Affiliation	Topic/Title
1-Sept	Jack Byrne, PhD	Neurobiology and Anatomy-MMS	Course Introduction
8-Sept	Joshua Shulman, MD, PhD	Baylor College of Medicine	Lysosomal Oligogenic Risk in Parkinson's Disease
15-Sept	Myriam Fornage, PhD	IMM-Center for Human Genetics-MMS	Multi-Omic Studies in CSVD: From Genetics to Precision Medicine
22-Sept	Andrea Stavoe, PhD	Neurobiology and Anatomy-MMS	Autophagy and Neurodegeneration
29-Sept	Andrew M. Pickering, PhD	Integrative Biology and Pharmacology-MMS	Proteasome Dysfunction: A Pathologic Feature of Neurodegenerative Disease
6-Oct	Neha Parikh, PhD	School of Dentistry	Systemic Inflammation and Oral Dysbiosis in Alzheimer's Disease
13-Oct	Anjail Sharrief, MD, MPH	Neurology-MMS	Community approaches to Brain Health Education and Screening
20-Oct	Paul Schulz, MD	Neurology-MMS	Anti-viral Vaccinations to Reduce Alzheimer's Risk
27-Oct	Joseph Masdeu, MD, PhD	Houston Methodist	Human Brain Imaging as a Research and Clinical Tool
3-Nov	Aanand Naik, MD	SPH, Management, Policy & Community Health	Evidence-Based Approaches to Dementia Prevention in At-Risk Older Adults
10-Nov	Sahiti Myneni, PhD	SBMI, Clinical and Health Informatics	Digital Technologies and Analytics for Personalized Support in Dementia Prevention
17-Nov	SfN Nov 14-18		No class
24-Nov	Thanksgiving Week		No class
1-Dec	Kayo Fujimoto, PhD	SPH, Health Promotion & Behavioral Sciences	Social Network Analysis in Health Prevention
8-Dec	Shreela Sharma, PhD	SPH, Epidemiology	Nutrition in Dementia Prevention
15-Dec	Long-Jun Wu, PhD	IMM-Center for Neuroimmunology and Glial Biology-MMS	Neuroimmune Interaction: The Role of Microglia in Neurodegeneration