



Department of Sociology
MICHIGAN STATE UNIVERSITY

Genome-wide association studies, gene-by-social factor interactions, and multi-omic analysis of cognitive function and dementia in older adults

11:30 a.m. - 1 p.m. Thursday Dec. 15

via Zoom



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Abstract:

Cognitive impairment and decline are common among older adults, and they may be early indicators of Alzheimer's disease (AD) and related dementias. Genetic factors have been associated with both AD susceptibility and cognitive function. However, less is known about how these genetic risk factors vary in their effects across populations, interact with social environments, and associate with the epigenome and transcriptome. In this talk, I will 1) outline findings from genome-wide association studies (GWAS) of AD and cognitive function, 2) highlight studies that examine the associations between genetic factors, socioeconomic indicators, and cognition or dementia status in European ancestry and African ancestry participants from the Health and Retirement Study (HRS), and 3) discuss a gene-based analysis of cognitive function that combines genomic, epigenomic, and transcriptomic data from African American participants in the Genetic Epidemiology Network of Arteriopathy (GENOA). Innovative genomic and epidemiologic research may help to characterize biological and social pathways that can be leveraged for developing earlier or more effective interventions for cognitive impairment and dementia.

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