

Study identifies two new genes responsible for Alzheimer's disease among African-Americans

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Researchers have identified two new genetic risk factors for Alzheimer's disease (AD) among African Americans.

The findings, which appear online in the journal *Alzheimer's and*

Dementia, may lead to the development of new therapies specifically targeting those [genes](#).

Despite the fact that AD is more common in African Americans than Caucasians, the AD genetic risk profile for African Americans is more poorly understood. While more than 20 genes have been identified as risk factors for AD in Caucasians, fewer than five have been identified for African Americans.

In 2013, a genome-wide association study of AD in more than 5,500 African Americans identified two [genetic risk factors](#) for AD. This study looked at genetic variants across subjects' entire genome and compared their frequency in cases versus controls. Researchers from Boston University School of Medicine (BUSM) used these same subjects, but added additional AD risk information (smoking status, diabetes status, education level) to their statistical modeling to increase the power of the study. By doing so they were able to identify two new genes (COBL and SLC10A2) associated with risk of AD in African Americans.

"There are currently no medications for AD that slow or stop the progression of the disease. Genes that increase risk for AD are potential targets for new disease-modifying AD drug therapies. Our study identifies two potentially "drugable" targets," explains corresponding author Jesse Mez, MD, MS, assistant professor of neurology at BUSM and associate director of the Boston University Alzheimer's Disease & CTE Center Clinical Core.

According to the researchers the methodology they employed for this study allowed them to make an important discovery without investing more money in genotyping or more effort to recruit volunteers. They believe the a similar methodology could be used for many other diseases to make new genetic discoveries without new large investments.

"Despite the fact that Alzheimer's disease is more common in African Americans than Caucasians, we understand less about the genes that influence risk of Alzheimer's in African Americans. Our hope is that this study begins to eliminate that disparity and that ultimately these newly identified genes become targets for Alzheimer's disease drug development," added Mez.

Provided by Boston University Medical Center

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