Study leads to potential for new treatment approach to Alzheimer's
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Alzheimer's disease is driven by several other factors including inflammation, membrane turnover and storage, and lipid metabolism.

In this study the researchers focused on triggering receptor expressed on myeloid cell-2 (TREM2). "TREM2 was identified several years ago as a gene that, when there's a mutation, significantly increases risk of Alzheimer's disease. The field thinks that this mutation reduces the function of the receptor, so we hypothesized that targeting TREM2 to increase its function might be a valid treatment for Alzheimer's," explained Donna Wilcock, SBCoA associate director.

Through the groups work they found that the therapeutic targeting of TREM2 using a TREM2-activating antibody leads to the activation of microglia, recruitment of microglia to amyloid plaques, reduced amyloid deposition, and ultimately improved cognition. "The big takeaway is that this is the first approach that targets TREM2 to promote microglia to clear the amyloid deposits in the brain that are thought to be the cause of Alzheimer's," said Wilcock.

The biopharmaceutical company Alector developed the antibody for this study which was conducted on mice. Due to the study's success SBCoA is set to be a site for an upcoming clinical trial using this new approach.


Provided by University of Kentucky

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