

Genetic and non-genetic resilience against memory decline and Alzheimer's

July 25 2016

Researchers across the world are keen to understand why some people experience memory decline or diseases like Alzheimer's, while others don't. At AAIC2016, two teams of researchers are presenting findings revealing clues to genetic and non-genetic factors influencing a person's resilience to memory decline and Alzheimer's.

In the first study, a team from the University of Alberta, Canada, studied 642 healthy people aged 53-95yrs. They split the group into those whose memory was good or didn't decline over a nine-year period and those who had a poor memory or whose memory worsened over the study. Participants were classed as 'memory resilient' if they fell into the first group, despite carrying one of two [genetic risk factors](#) for Alzheimer's. They report that a younger age, higher education and lifestyle-related cognitive activities were all associated with memory resilience in men and women. For women, [health factors](#) such as pulse pressure, mobility and [social factors](#) were also associated with memory resilience.

A second study from researchers at Brigham Young University in Utah studied over 75s in families at higher genetic risk of Alzheimer's. By studying the genetic code of people within those families who had not developed Alzheimer's, they identified a version of a gene called RAB10 that appeared to make individuals more resilient to the disease. RAB10 was shown to affect levels of the hallmark Alzheimer's protein, amyloid, in cells.

Dr Rosa Sancho, Head of Research at Alzheimer's Research UK, said:

"Studying why some people appear to be more resilient to [cognitive decline](#) can provide an insight into the mechanisms protecting against diseases like Alzheimer's as well as potential approaches to help others maintain a healthy brain into later life. A person's risk of Alzheimer's is influenced by age, genetics and lifestyle factors and it's vital that we start to unpick the complex interplay between these risk factors.

"While there is nothing we can do to alter our genes, research is showing that [lifestyle factors](#) play a role in influencing our cognitive performance later in life. Evidence suggests that around one third of cases of Alzheimer's may be down to risk factors that we could change like smoking and physical inactivity. Discovering genes that could protect against diseases like Alzheimer's helps point researchers towards targets for new drugs, but it's too early to know whether RAB10 could form the basis for a new Alzheimer's treatment."

Provided by Alzheimer's Research UK

Citation: Genetic and non-genetic resilience against memory decline and Alzheimer's (2016, July 25) retrieved 23 April 2024 from <https://medicalxpress.com/news/2016-07-genetic-non-genetic-resilience-memory-decline.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--