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★ Brain age (Jonsson, 2019)

B. A. Jonsson, et al.
Nature Communications

Aging Brain

STUDY SUMMARY

Identification of 2 genetic variants associated with brain aging.

STUDY DESCRIPTION

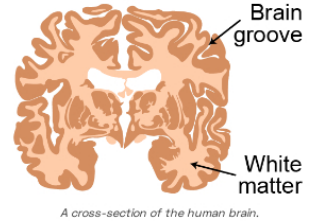
Aging is associated with structural changes in the brain. This study developed an algorithm to predict age from brain images. Predicted age difference (PAD), a measure for accelerated aging, was calculated by subtracting the chronological age from the predicted age. The calculated PADs were used in a genome-wide association analysis that included over 16,000 participants of European ancestry and linked 2 genetic variants to accelerated brain aging. The first variant was correlated with the width of the grooves on the brain's surface and the second variant was linked to the area of white matter (connections between brain regions) observed in brain images.

DID YOU KNOW?

Studies have shown that feeling young correlates with slower brain aging. People who feel younger might lead a more physically and mentally active life, which could translate to brain health benefits.

YOUR DETAILED RESULTS

The variants highlighted in green have **positive effect sizes** and increase your genetic predisposition to accelerated brain aging. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to accelerated brain aging. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to accelerated brain aging. However, please note that genetic predispositions do not account for important non-genetic factors like lifestyle. Furthermore, the genetics of most traits has not been fully understood yet and many associations between traits and genetic variants remain unknown. For additional explanations, click on the column titles in the table below and visit our [Nebula Library tutorial](#).



VARIANT [ⓘ]	YOUR GENOTYPE [ⓘ]	COMMENTS	EFFECT SIZE [ⓘ]	VARIANT FREQUENCY [ⓘ]	SIGNIFICANCE [ⓘ]
rs2435204_G	G / G	Reduced white matter surface area	0.11 (↑)	27%	1.40×10^{-12}
rs1452628_T	A / T	Reduced sulcal width	-0.08 (↓)	36%	2.30×10^{-9}