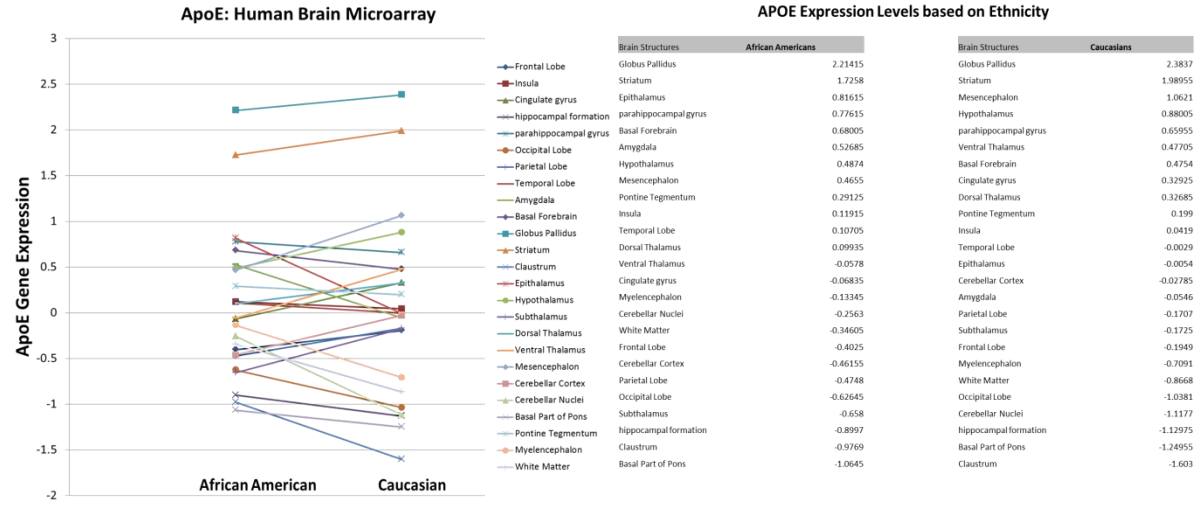


The Role of APOE in Alzheimer's Disease

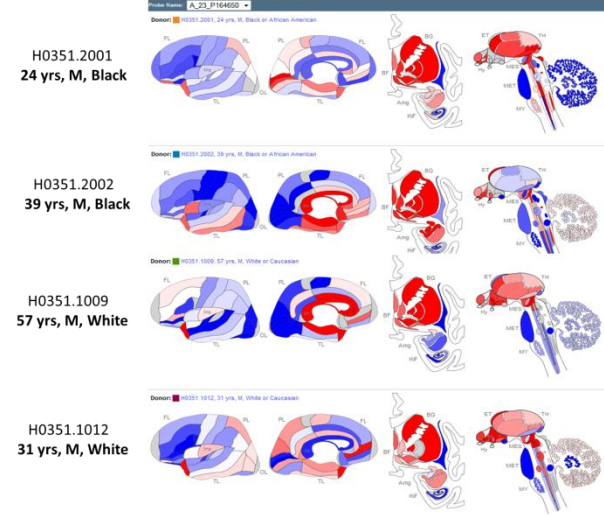
Introduction

APOE encodes Apolipoprotein E, a lipid carrier that is expressed in the liver and brain. The E4 variant is the largest known genetic risk factor for late-onset sporadic Alzheimer's Disease (AD).

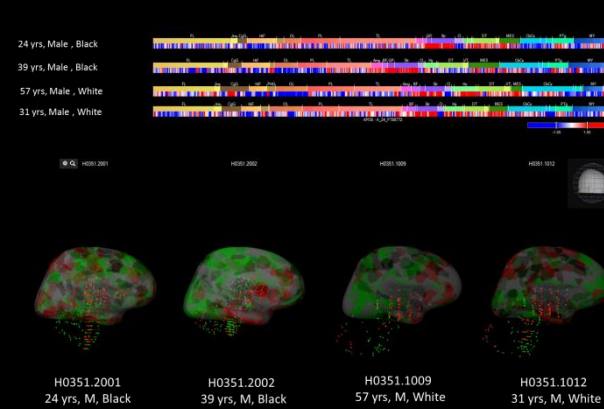
APOE Microarray Gene Expression based on Ethnicity



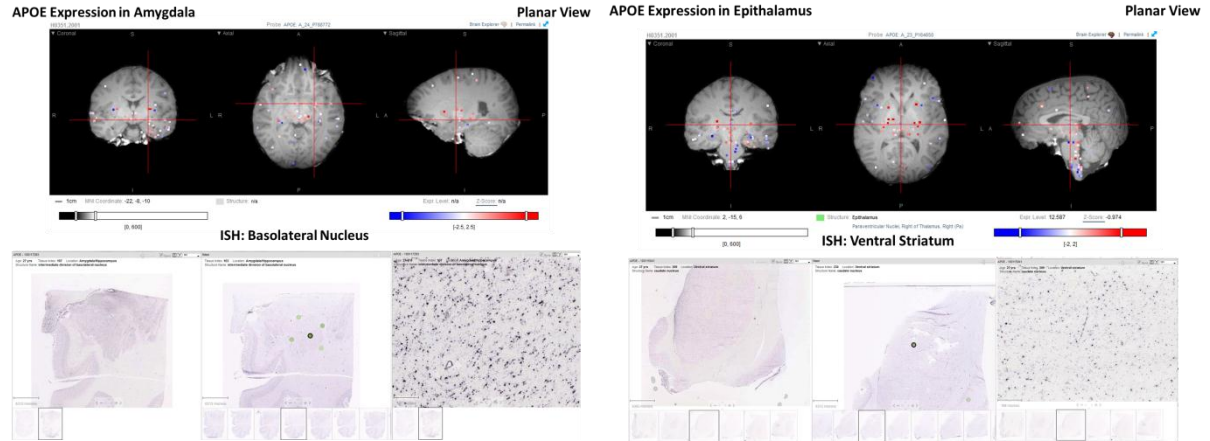
Human Brain: APOE microarray gene expression



Brain Explorer: APOE Microarray Gene Expression



APOE In Situ Hybridization



Conclusions:

1. Gene analysis on human brains revealed similar expression patterns of APOE in all available donors.
2. Subtle difference between African American and Caucasian APOE brain expression exist, although it is not statistically significant, based on non-parametric tests (TTEST).
3. Larger number of brain samples from elderly donors could reveal potential differences in gene expression that may contribute to AD development based on ethnic ancestry.