SUPPLEMENTARY MATERIAL

Supplemental Table 1. Quality control filters for single nucleotide polymorphism

11	3	1 2 1
Criteria	# of excluded variants	# of passed variants
MAF < 1%	29,429,731	8,613,031
Call rate per variant < 95%	1,928,184	6,684,847
HWE test in controls $< 10^{-5}$	19,386	6,665,461

Key: MAF, minor allele frequency; HWE, Hardy-Weinberg equilibrium

Supplemental Table 2. Gene-based associations of the target four genes with hippocampal sclerosis of aging assuming a recessive/additive/dominant mode of inheritance in people who died at age 80 years or older (n=1,883)

Gene	Gene-based p-value		
Gene	REC	ADD	DOM
GRN	0.24	0.035	0.026
<i>TMEM106B</i>	0.027	0.0032	0.0070
ABCC9	0.0017	0.0099	0.18
KCNMB2	0.23	0.014	0.015

Key: REC, recessive; ADD, additive; DOM, dominant

Supplemental Figure 1. The first and second principal components plots along with 1000 genome reference samples. Block dot indicates individuals in this study. We chose individuals within the red dotted circle based on Euclidean distance from an individual with maximum first and second principal components.

Key: AFR, African; AMR, Admixed American; EAS, East Asian; EUR, European; SAS, South Asian