

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Description of the data sets used for meta-analysis and replication.

File Name: Supplementary Data 2

Description: Replication of the SNPs selected with p-value $<10^{-05}$ within the new loci annotated.

File Name: Supplementary Data 3

Description: Results of significant genome-wide association meta-analysis of AD by Proxy and case/control status by cohorts.

File Name: Supplementary Data 4

Description: The genetic landscape of late-onset Alzheimer's disease

File Name: Supplementary Data 5

Description: Variants included to perform the Polygenic risk Score

File Name: Supplementary Data 6

Description: 50 risk tiles of the PRS

File Name: Supplementary Data 7

Description: Association of the continuous AD-PRS within each *APOE* groups using logistic regression models adjusted for four population ancestry components.

File Name: Supplementary Data 8

Description: Risk extremes comparisons between the *APOE* $\epsilon 4\epsilon 4$ highest PRS risk tile to the *APOE* $\epsilon 2\epsilon 2/\epsilon 2\epsilon 3$ lowest PRS risk tile.

File Name: Supplementary Data 9

Description: COX regression model on age at onset based on case-only in GR@ACE/DEGESCO cohort.

File Name: Supplementary Data 10

Description: Description of datasets within DEGESCO/GR@ACE consortium.

File Name: Supplementary Data 11

Description: Quality control for GR@ACE discovery dataset

File Name: Supplementary Data 12

Description: Samples within EADB France node

File Name: Supplementary Data 13

Description: Conditional analysis on chromosome 16. *PLCG2* region

File Name: Supplementary Data 14

Description: Conditional analysis on chromosome 17. *MINK1/CHRNE* and *SCIMP* region File

File Name: Supplementary Data 15

Description: Gene-set association results for curated gene-sets.

File Name: Supplementary Data 16

Description: Summary statistics and functional annotation for SNPs reaching genome-wide significance in the GR@ACE, IGAP and UK Biobank meta-analysis for Alzheimer's Disease.

File Name: Supplementary Data 17

Description: Genes significantly associated with AD in gene-based association tests

File Name: Supplementary Data 18

Description: Genes significantly associated with AD implicated by positional mapping, eQTL, chromatin interaction and gene-based analysis.