

Description of Additional Supplementary File

File name: Supplementary Data 1

Description: Sample metadata and sequencing QC metrics

File name: Supplementary Data 2

Description: Short-read sequencing average gene expression, cell counts, and DEGs for each cell type comparing AD to ND. Source data for Fig 1b-h; Fig 4d,h; Fig 5 f-l; Fig 6f; Fig 8c,f,h

File name: Supplementary Data 3

Description: unfiltered isoSeQL output of all isoforms from long-read sequencing. Source data for Fig 2b,f,h-i

File name: Supplementary Data 4

Description: isoSeQL output for highquality isoforms meeting confidence cutoffs. Source data for Fig 2b-h,j; Fig 4c,g; Fig 5b-e; Fig 6e; Fig 8b,e,i

File name: Supplementary Data 5

Description: List of AD-related genes and corresponding isoform metrics

File name: Supplementary Data 6

Description: DESeq2 output for differential isoform expression. Source data for Fig 5a.

File name: Supplementary Data 7

Description: DEXseq output for isoform switching analysis

File name: Supplementary Data 8

Description: Cell type assignment for isoforms. Source data for Fig 7m; Fig 9a

File name: Supplementary Data 9

Description: RT-qPCR values for CHI3L1 isoforms. Source data for Fig 6h.

