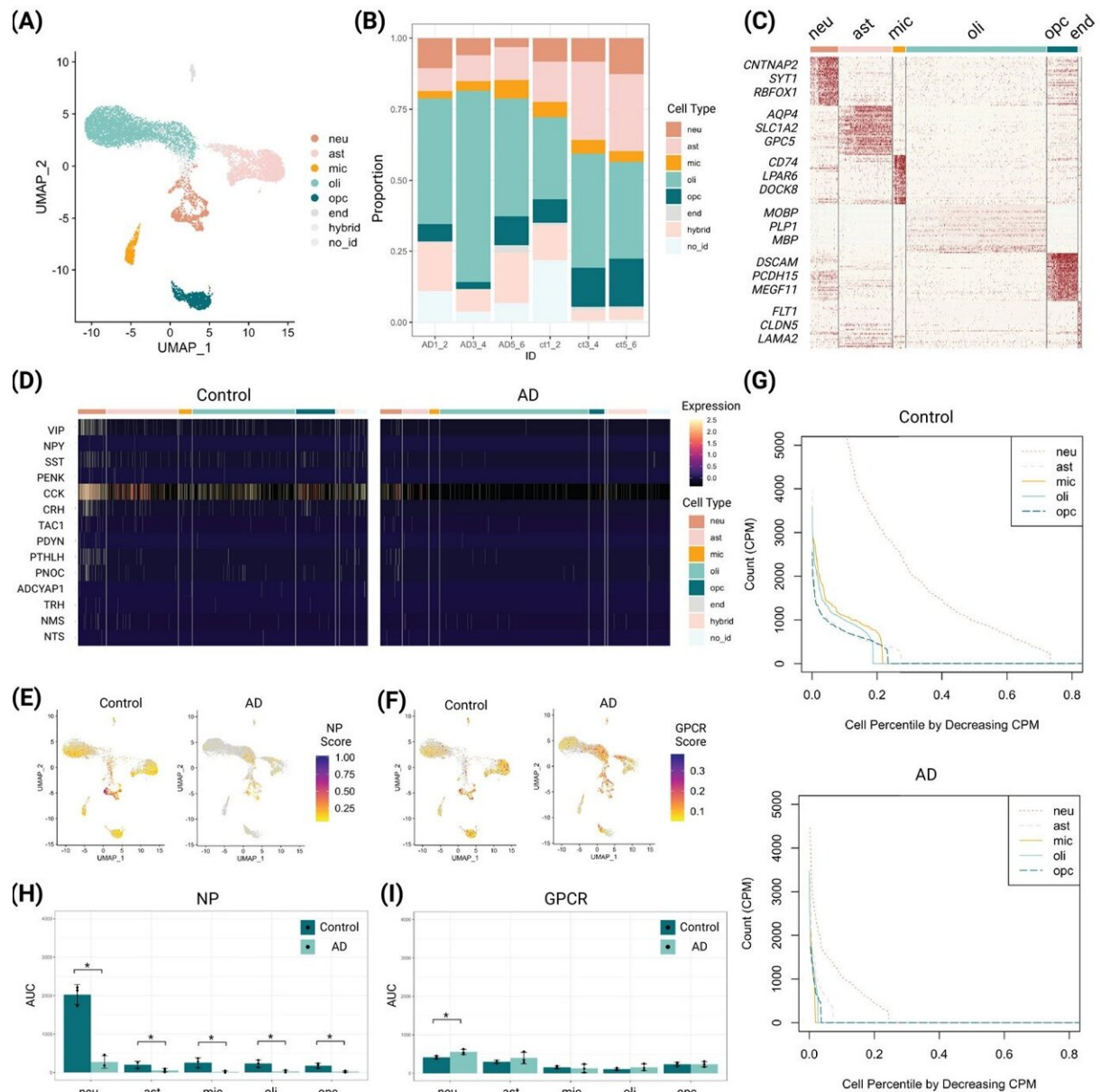


# Research indicates clues to early detection and prevention of Alzheimer's disease

March 8 2023



Decreased expression of neuropeptides (NPs) revealed by single-cell sequencing data. (A) Cell identity shown on dimension reduction plot. (B) Cell composition of grouped replicates (two biological replicates per group). (C) Differential gene expression confirmed the identification of cell marker genes for each assigned cell type. (D) Heatmap showing expression levels of selected NP genes in each cell type in control and AD brains. (E) Gene module score for selected NPs calculated from control and AD brains visualized on dimension reduction plot. (F) Gene module score for selected GPCRs calculated from control and AD brains visualized on dimension reduction plot. (G) Total relative count of all selected NPs plotted against cell percentile ranked by decreasing cell count in selected cell types in control and AD. (H) Area under the curve (AUC) of NP transcription for selected cell types in each grouped replicate in control and AD. One-tailed Wilcoxon signed-rank test was used. (I) The AUC of GPCR transcription for selected cell types in each grouped replicate in control and AD. One-tailed Wilcoxon signed-rank test was used. \*,  $p$

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