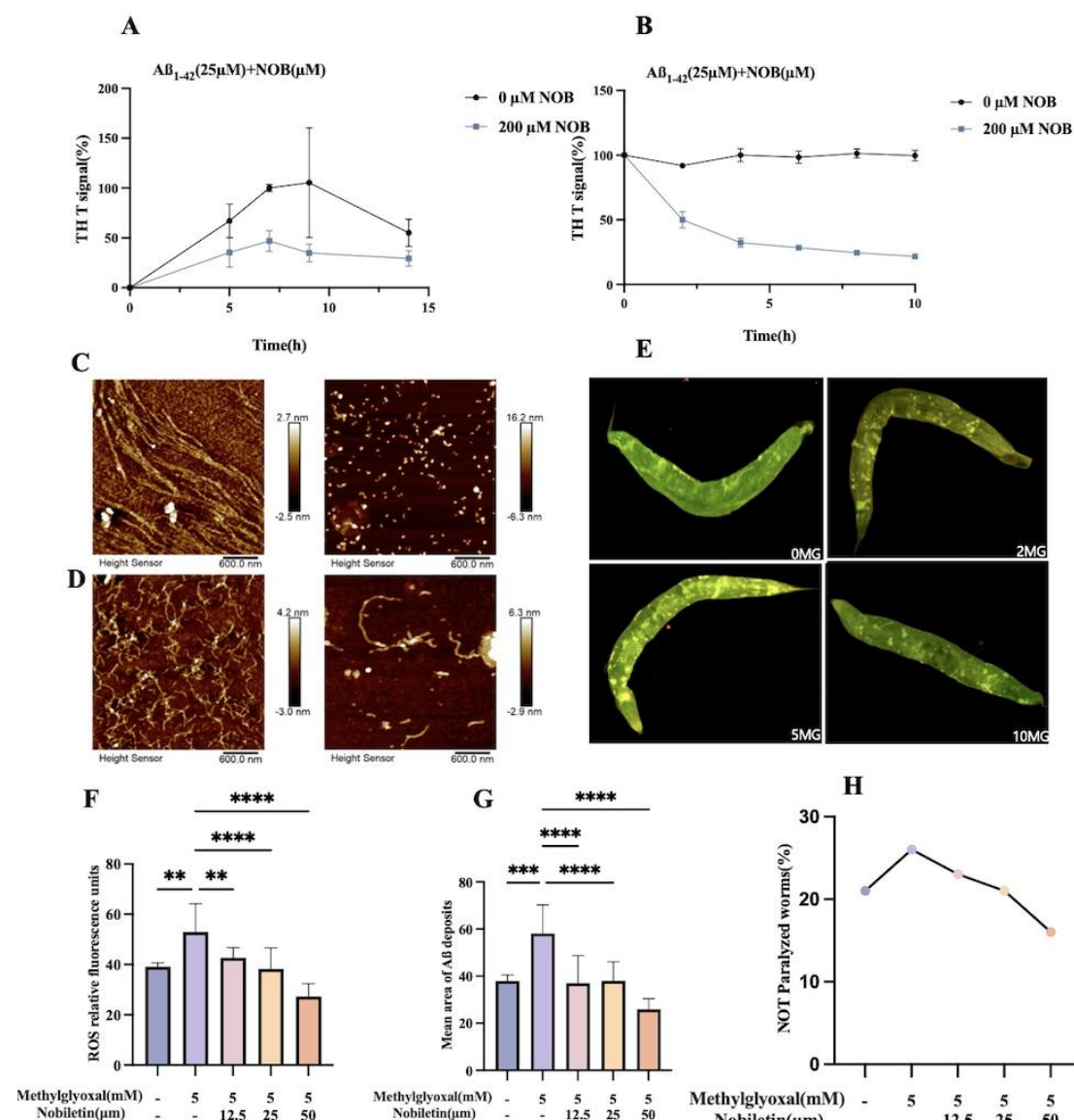
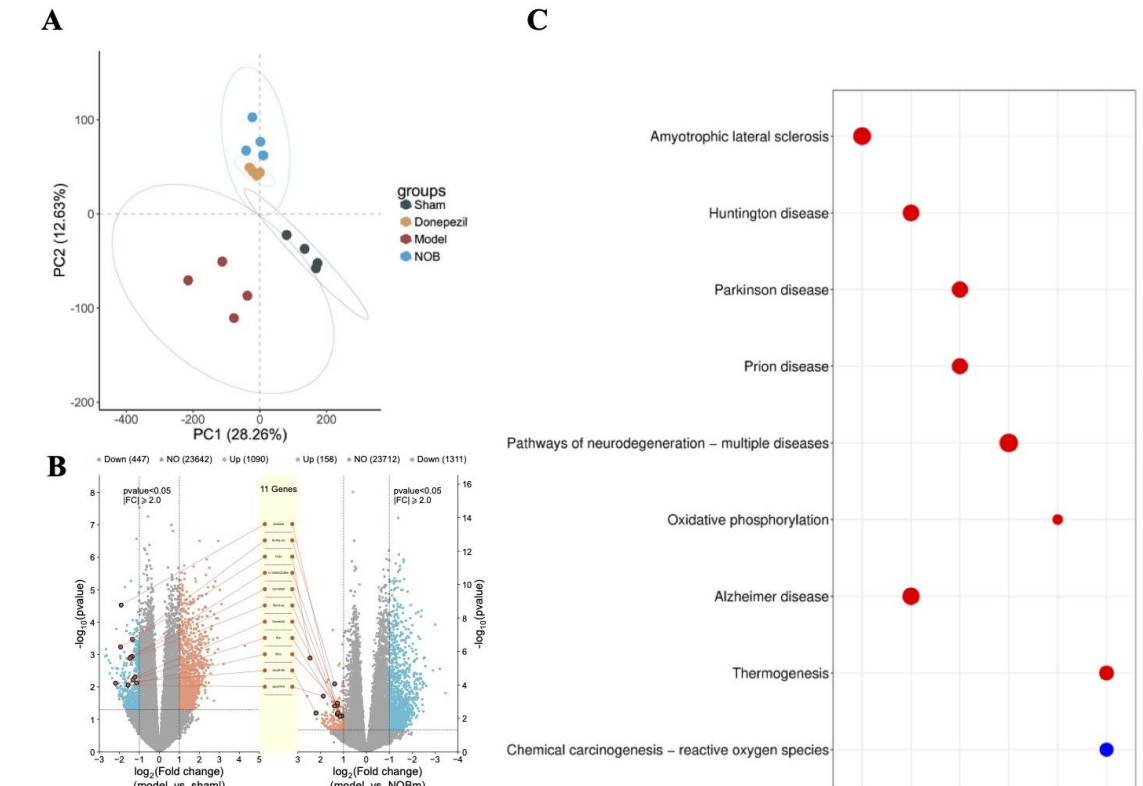
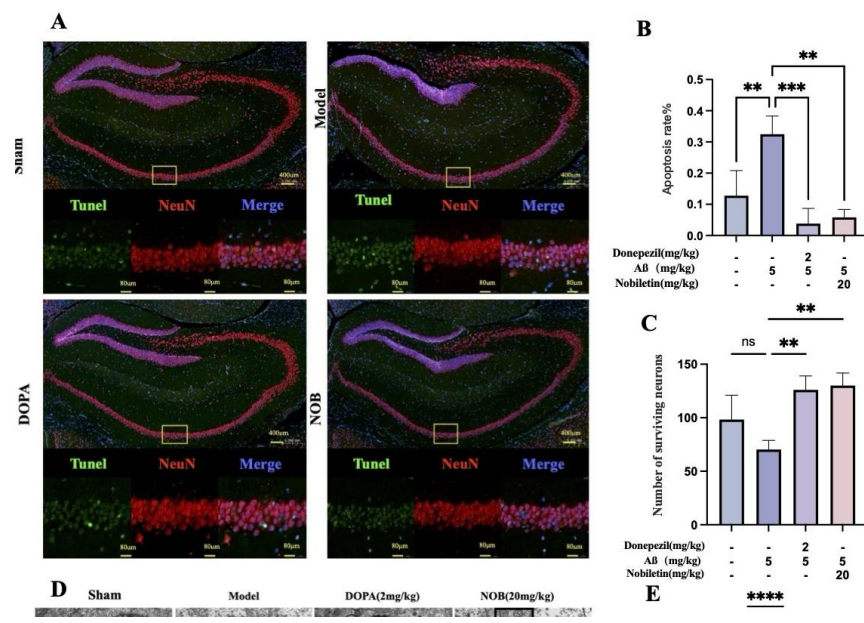


Transcriptomic Insights into Neuroprotection of Nobiletin and Inhibitory on Aβ₁₋₄₂ Aggregation

P1-001

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Nobiletin pretreatment may help protect against Alzheimer’s-related damage by reducing Aβ₁₋₄₂ aggregation, lowering oxidative stress, changing gene expression in the hippocampus, and protecting neurons

BACKGROUND	METHODS	AMYLOID	TRANSCRIPTOME	NEUROPROTECTION
• Nobiletin (NOB) is a citrus flavone with potential cognitive-protective activity. • Its preventive effect in AD-focused models remains insufficiently defined. • Aim: test whether NOB pretreatment protects against Aβ₁₋₄₂ toxicity across peptide, C. elegans and mouse models.	• In vitro: ThT fluorescence and AFM tracked Aβ₁₋₄₂ fibrillation and fibril disaggregation. • C. elegans CL4176: NOB pretreatment before methylglyoxal challenge; amyloid deposits, ROS and paralysis were measured. • Mice: 3-week i.p. pretreatment (NOB 20 mg/kg; donepezil control) before i.c.v. Aβ₁₋₄₂; RNA-seq, histology and TEM followed.	• Suppressed Aβ₁₋₄₂ fibrillation • Disaggregated protofibrils • Reduced amyloid deposits and ROS in CL4176 worms • Reduced paralysis rate 	• NOB separated hippocampal profiles from the Aβ model • 890 DEGs: 824 up, 66 down • 11 core DEGs identified • WGCNA/KEGG linked neurodegeneration, AD and oxidative phosphorylation 	• NOB lowers apoptosis and preserves surviving hippocampal neurons. 
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