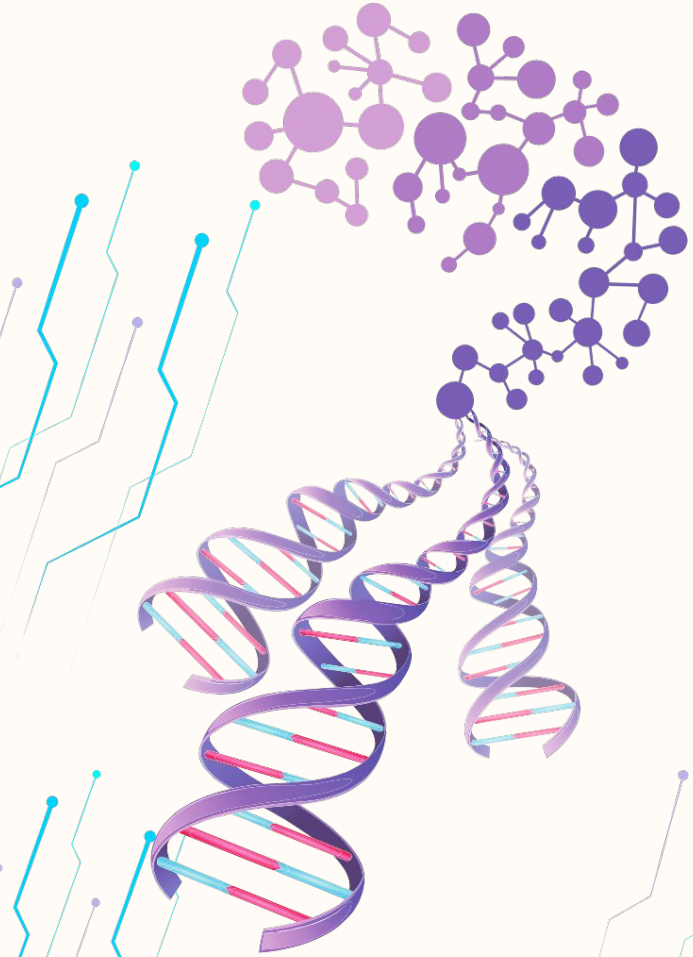
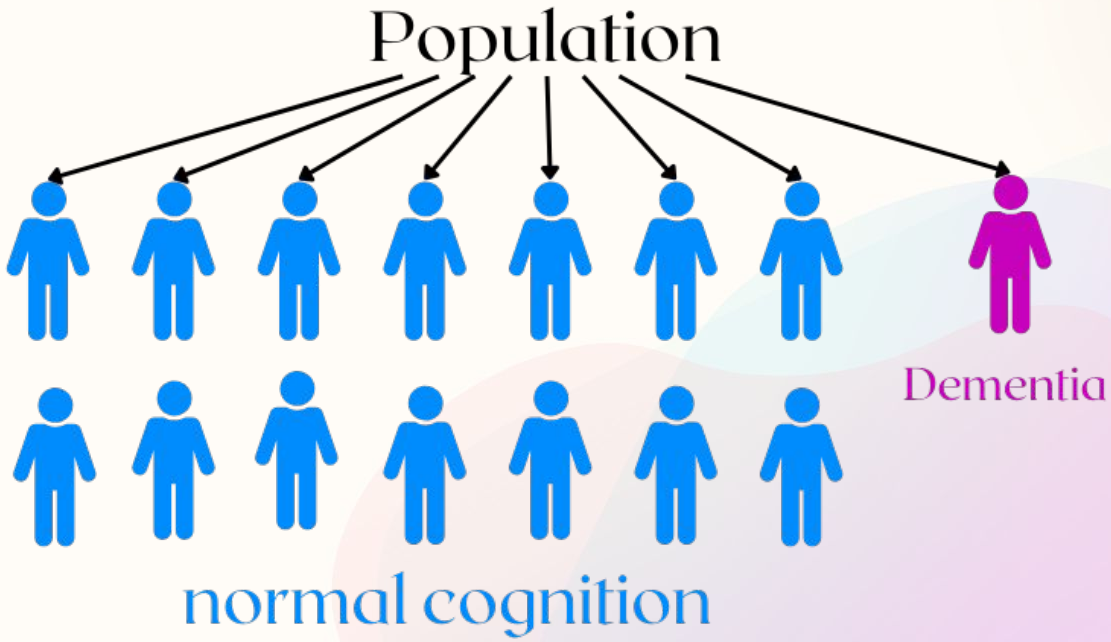


Beyond ApoE4:
Genomic Insights for Cognitive Health

Anna Sattah, MD
Insight Functional Health



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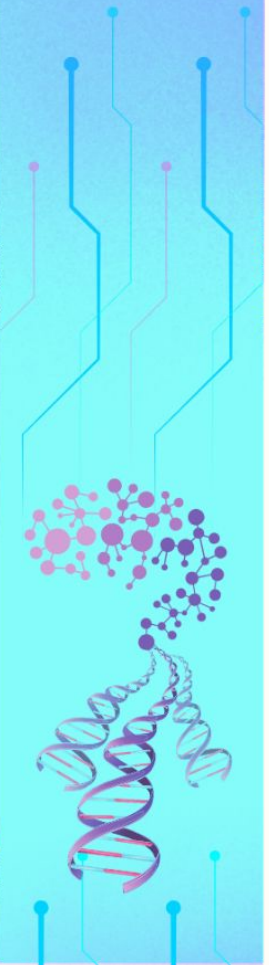

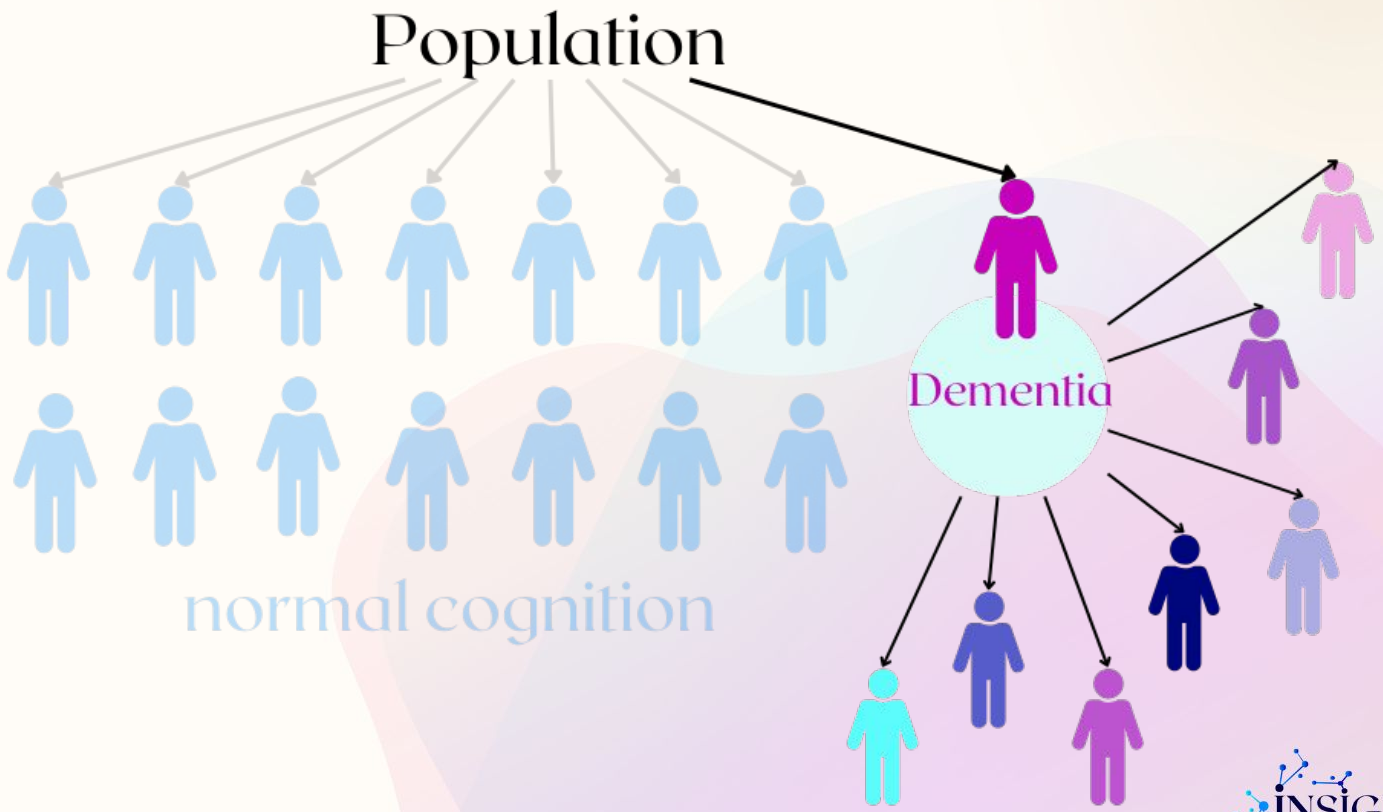

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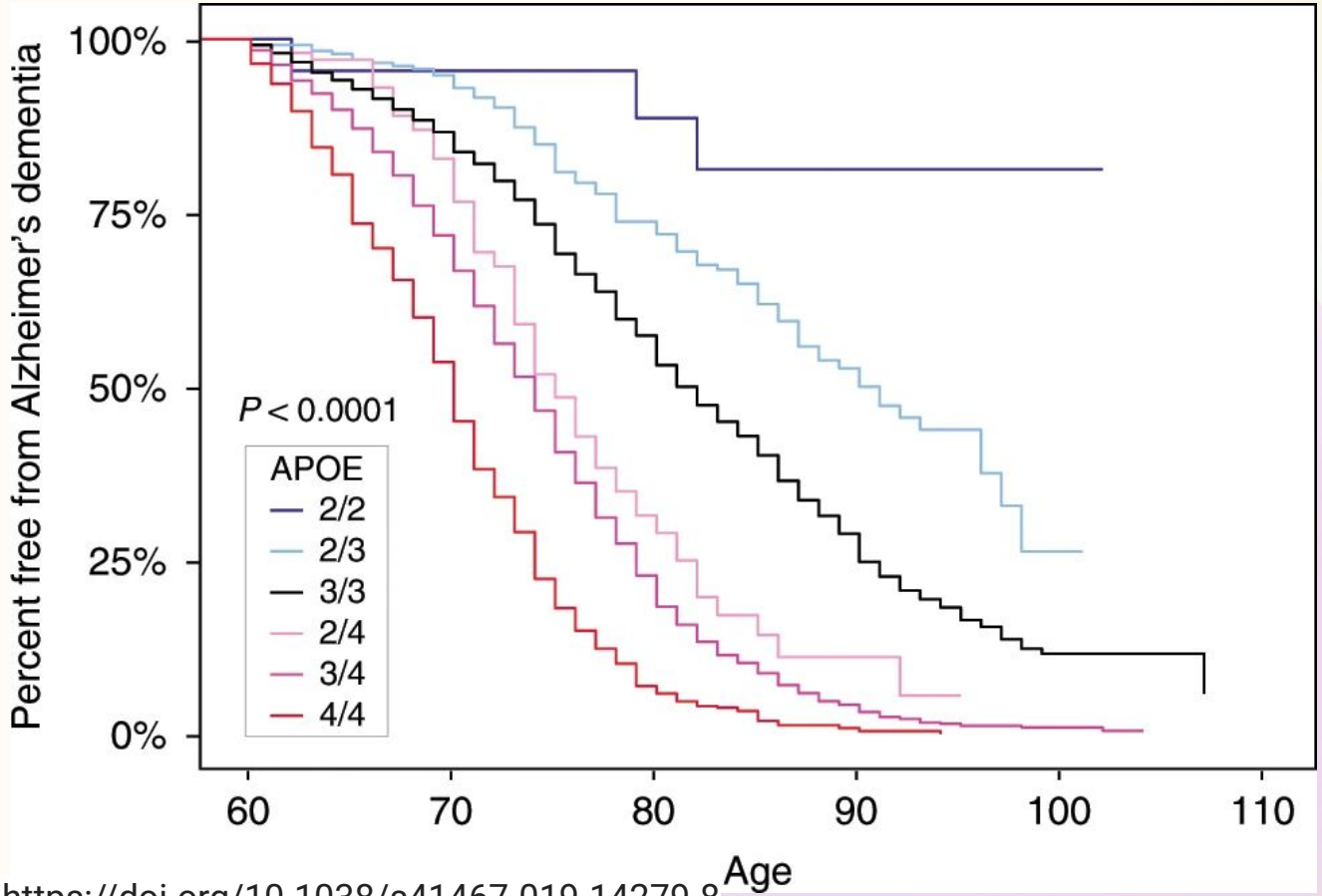
Risk of Dementia with ApoE Gene Status



https://doi.org/10.1038/s41467-019-14279-8

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Brain Optimization Report

IntelIxxDNA™

Key Panels

- Brain Ischemia
- Cognition and Memory
- Hippocampal Atrophy
- White Matter Changes

Fundamentals

Inflammation & Gut:
- Gluten/Celiac
- Inflammation

Detox & Nutrigenomics
- Heavy Metals & Glutathione
- Environmental Toxins
- Homocysteine & Methylation
- Choline
- Copper & Zinc
- Magnesium
- Vitamins B12, B6, D

Supporting Panels

- Anesthesia Response
- BDNF
- CRP
- Diabetes Type 2
- Endocannabinoid
- Estrogen
- Obesity & Weight Control
- Thyroid: Free T4 to Free T3

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Lenny, International Businessman

- 47 year old man with cognitive decline that worsened when traveling
- Baseline cognitive testing- Mild Cognitive Impairment
- Read “The End of Alzheimers” br Dr Bredesen
  - Keto diet
  - 10+ supplements
  - No significant improvement
- What’s going on?

Presented by Dr Sharon Hausman-Cohen MD- IMMH conference 2024

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Blood Flow/ Brain Ischemia was Key

SNP ID / Gene / Minor Allele	Patient Results / Prevalence	Variant	Panel	SNP Key Point
F2 A	AG 3.3%	1	Brain Ischemia	Factor II *(ischemic stroke/hypercoagulable)* — *This is the F2 SNP (prothrombin gene mutation) that has been highly studied due to its causal role in the formation of blood clots in the legs and lungs. It also can increase blood clotting and cause "thicker" blood in the brain. This can increase the risk of low oxygen and strokes.* Potential Interventions
F5 T	TC 5%	1	Brain Ischemia	Coagulation Factor V *(ischemic stroke/hypercoagulable)* — *This is the F5 SNP (Factor V Leiden mutation) that has been highly studied due to its causal role in the formation of blood clots in the legs and lungs. It also can increase blood clotting and cause "thicker" blood in the brain. This can increase the risk of low oxygen and strokes.* Potential Interventions
CYP19A1 C	CC 10.3%	2	Cognition and Memory	Cytochrome P450 Family 19 Subfamily A Member 1 *(estrogen synthesis)* — *Individuals with this SNP are prone to lower capacity to make estrogen. Estrogen is neuroprotective, so individuals with impaired estrogen production and this SNP have increased cognitive risks. This SNP can also have additive effects with APOE e4.* Potential Interventions
IGF2BP2 T	TT 10.5%	2	Diabetes Type 2	Insulin Like Growth Factor 2 mRNA Binding Protein 2 *(insulin resistance, hyperglycemia)* — *Individuals with this SNP have been associated with overexpression of an insulin growth factor (IGF2). This can cause damage to the pancreas, insulin resistance, higher blood sugar levels, and increased storage of abdominal fat.* Potential Interventions

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Addressing His Tendency to Clot More

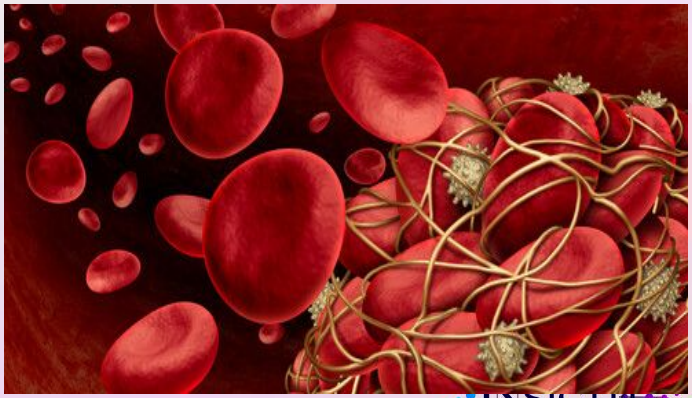
Pycnogenol- can decrease fibrinogen by up to 62%

Lumbrokinase- decreases fibrinogen and inflammatory cytokines

-in a trial of patients with recent stroke

- reduced stroke 82%

Nattokinase- decreases fibrinogen



https://pubmed.ncbi.nlm.nih.gov/24229674/
https://pubmed.ncbi.nlm.nih.gov/19358933/

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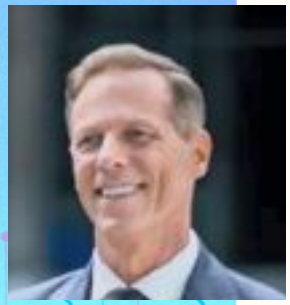

Lenny's Plan

- Stop the keto diet (harder to do while traveling and just maintain a mediterranean low carb diet)- not necessary for his genomic profile, no ApoE4 or mitochondrial issues
- Pycnogenol and lumbrokinase- to address clotting tendency
- Androgel- to address an enzyme that converts testosterone to estradiol
- B12- poor transport of B12 to the brain
- Liothyronine- poor conversion of inactive thyroid hormone to the active form

OK to stop the approximately 12 other things he had been taking

Lenny did great with complete resolution of his cognitive decline

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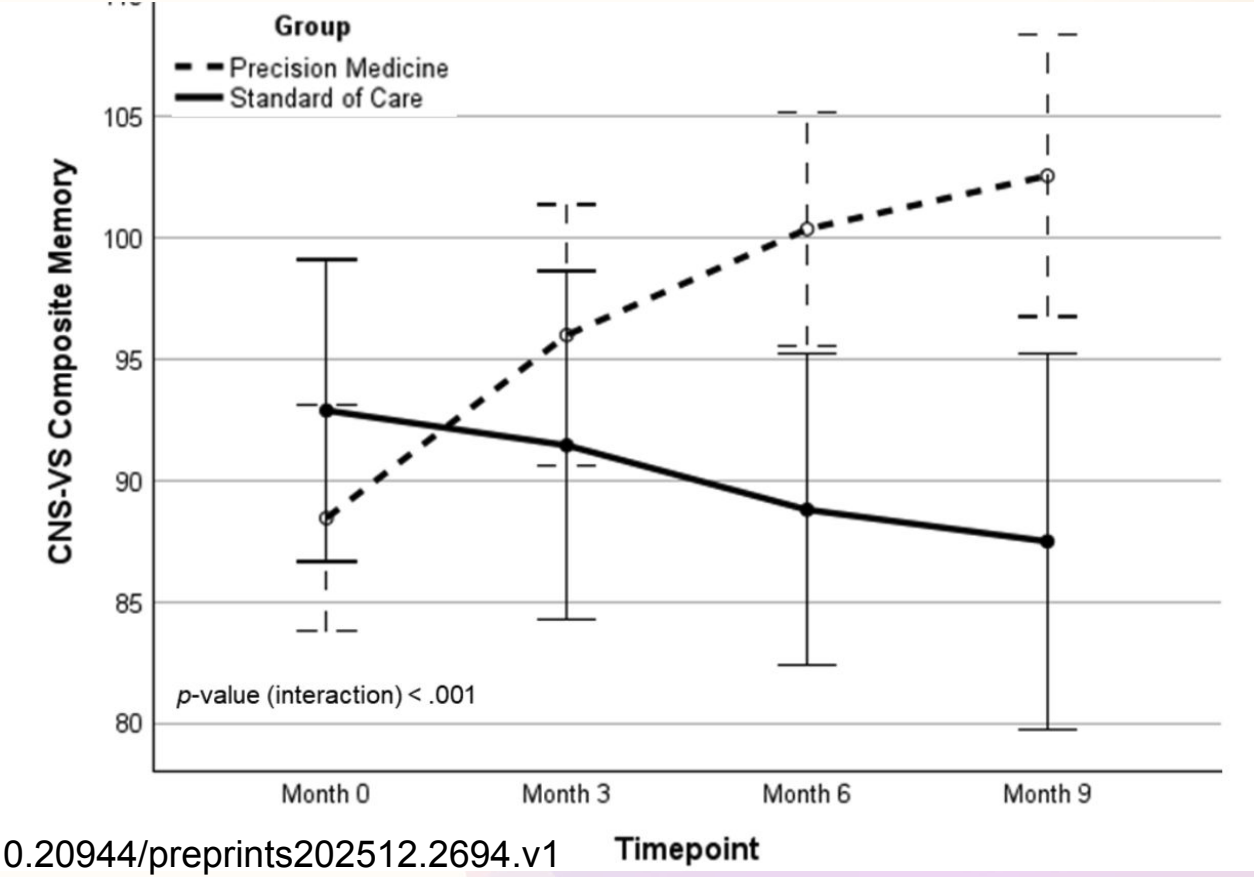
Evanthea Trial- precision medicine



doi: 10.20944/preprints202512.2694.v1

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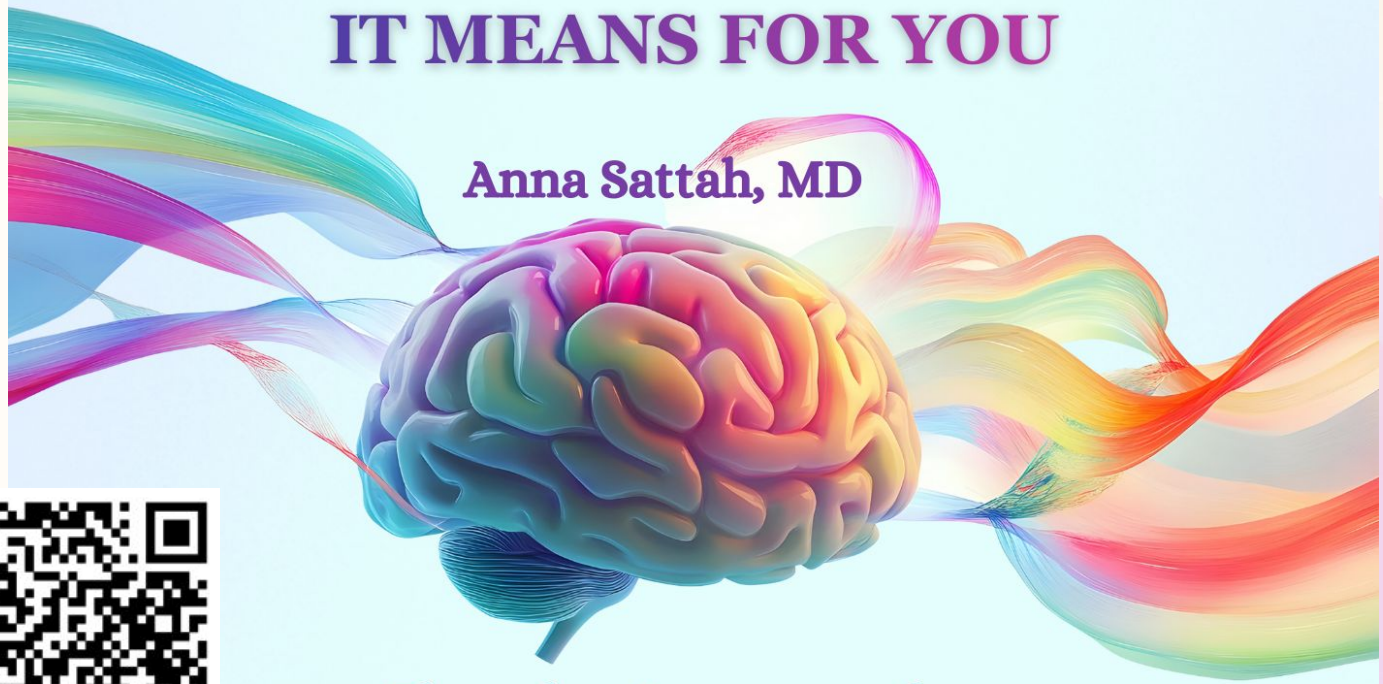
THE MOMENT ALZHEIMER'S RESEARCH SHIFTED — AND WHAT IT MEANS FOR YOU



Anna Sattah, MD

Thursday, January 29th

7:00PM (EST) via ZOOM

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