

entering the new era in Alzheimer's prevention research

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financial disclosures

scientific advisor

Amnestix/Sygnis, AstraZeneca, Baxter, Bayer, Chiesi, Eisai, Elan, Novartis, Eli Lilly, GlaxoSmithKline, Intellect, Novartis, Sanofi, Siemens, Takeda

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patent application

biomarker strategy for the evaluation of preclinical AD treatments (pending)

proposition

why now



suggested but unproven risk-reducing strategies

- investigational disease-modifying treatments
- aerobic exercise
- mental exercise & socialization
- vitamins A, C, D, E, B12, B-complex supplements, folic acid
- anti-oxidants (but not ginkgo biloba)
- omega-3 fatty acids (in fish, nuts & leafy vegetables)
- curcumin (in curry)
- Mediterranean diet
- low caloric intake & weight loss
- copper-lowering diet, medications
- moderate use of wine, alcohol; resveratrol (in grapes, red wine)
- cholesterol-lowering agents
- anti-hypertensive agents
- insulin-sensitizing agents
- anti-inflammatory agents
- hormonal therapies (but not in older women)
- etcetera



how might you reduce your risk of AD?

exercise your body & mind

engage in social activity

lower your cholesterol level & blood pressure

lose excess weight

treat your diabetes

stop smoking

fish, vegetables, nuts & omega-3 fatty acids

help find *demonstrably effective* prevention therapies

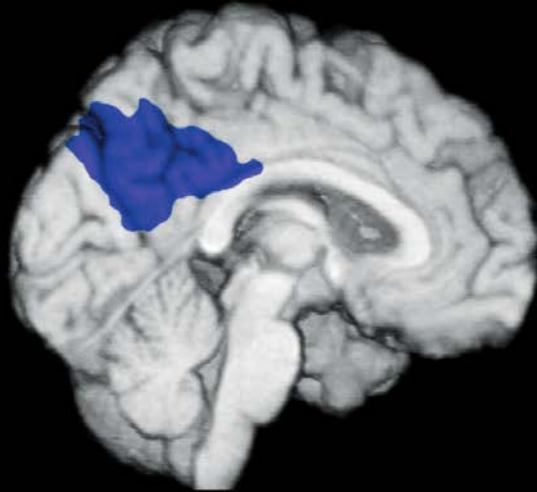
what's been holding us back

<i>APOE</i> ϵ4 Copies	prevalence	% with AD	onset age
0	73%	20%	84
1	24%	47%	75
2	3%	91%	68

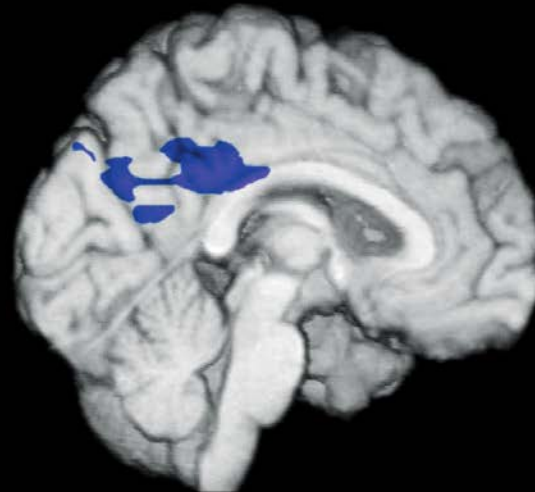
adapted from Corder et al, *Science* 1993

preclinical detection and tracking of AD

clinically affected



at-risk



preclinical detection and tracking of AD

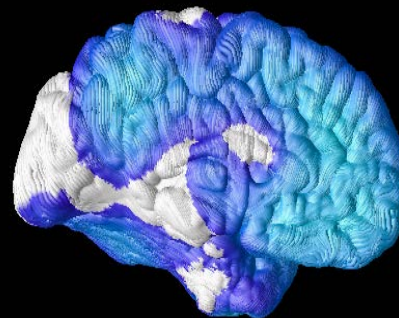
no APOE4 genes



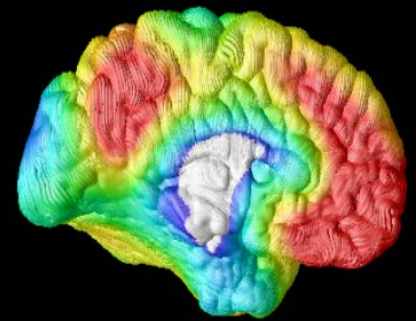
1 APOE4 gene



2 APOE genes



clinical AD



catch 22

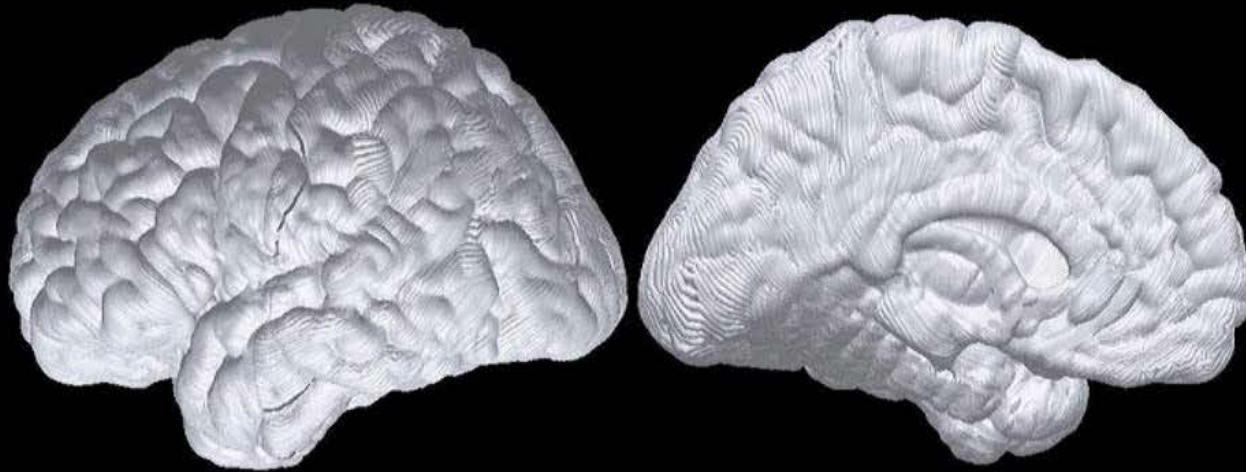
“preclinical AD treatments”



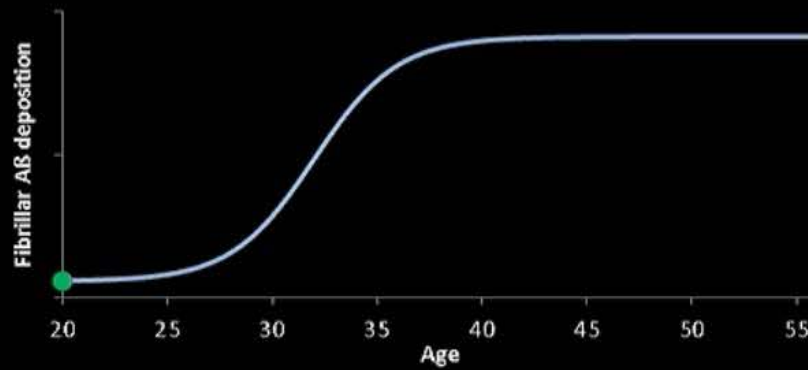
**a program to accelerate the evaluation
of preclinical AD treatments**

trial goals

1. to evaluate an anti-amyloid agent in the preclinical Rx of AD
2. to provide a better test of the amyloid hypothesis
3. to help establish “reasonably likely surrogate endpoints”
4. to provide a foundation for other preclinical AD trials
5. to complement, support & benefit from other initiatives
6. to provide a shared resource of data & samples
7. to help empower persons at highest imminent risk



25 years before kindred's median age at clinical onset
mutation carriers, healthy



Fleisher et al, *Lancet Neurol* 2012

API Composite Cognitive Test Score

Rush ADC Cohorts

1. CERAD Word List Delayed Recall
2. Logical Memory Delayed Recall
3. MMSE Orientation to Place
4. MMSE Orientation to Time
5. Raven's Progressive Matrices

PSEN1 E280A Antioquia Cohort

1. CERAD Word List Delayed Recall
2. Constructional Praxis
3. Boston Naming
4. MMSE Orientation to Time
5. Raven's Progressive Matrices

preclinical AD trials

API

DIAN

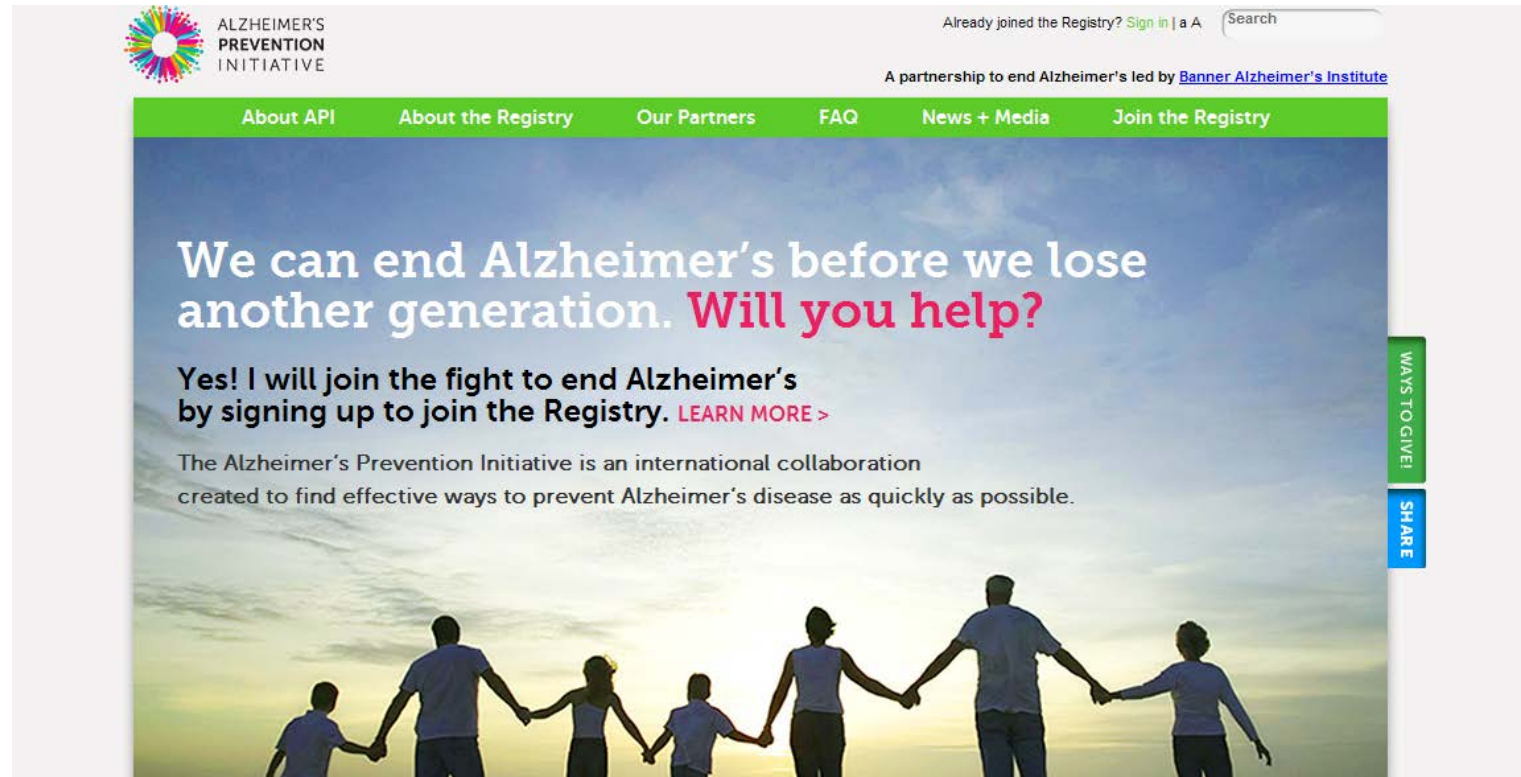
A4

Opal

others

Alzheimer's Prevention Registry

www.endALZnow.org



The screenshot shows the homepage of the Alzheimer's Prevention Registry. At the top left is the Alzheimer's Prevention Initiative logo. To its right, the text reads "ALZHEIMER'S PREVENTION INITIATIVE". Further right, there is a search bar and a link that says "Already joined the Registry? Sign in | a A". Below this is a navigation bar with a green background and white text: "About API", "About the Registry", "Our Partners", "FAQ", "News + Media", and "Join the Registry". The main content area features a large blue and white background with the text: "We can end Alzheimer's before we lose another generation. Will you help?". Below this is a call to action: "Yes! I will join the fight to end Alzheimer's by signing up to join the Registry. LEARN MORE >". A smaller paragraph follows: "The Alzheimer's Prevention Initiative is an international collaboration created to find effective ways to prevent Alzheimer's disease as quickly as possible." On the right side of the main content area, there are two vertical buttons: "WAYS TO GIVE!" and "SHARE". At the bottom of the main content area, there is a silhouette of a family of seven people holding hands against a sunset background.

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State of Arizona

Arizona Alzheimer's Consortium

Avid / Eli Lilly

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