



# NIA Science Advances 2019 Update

Visit from Friends of the NIA

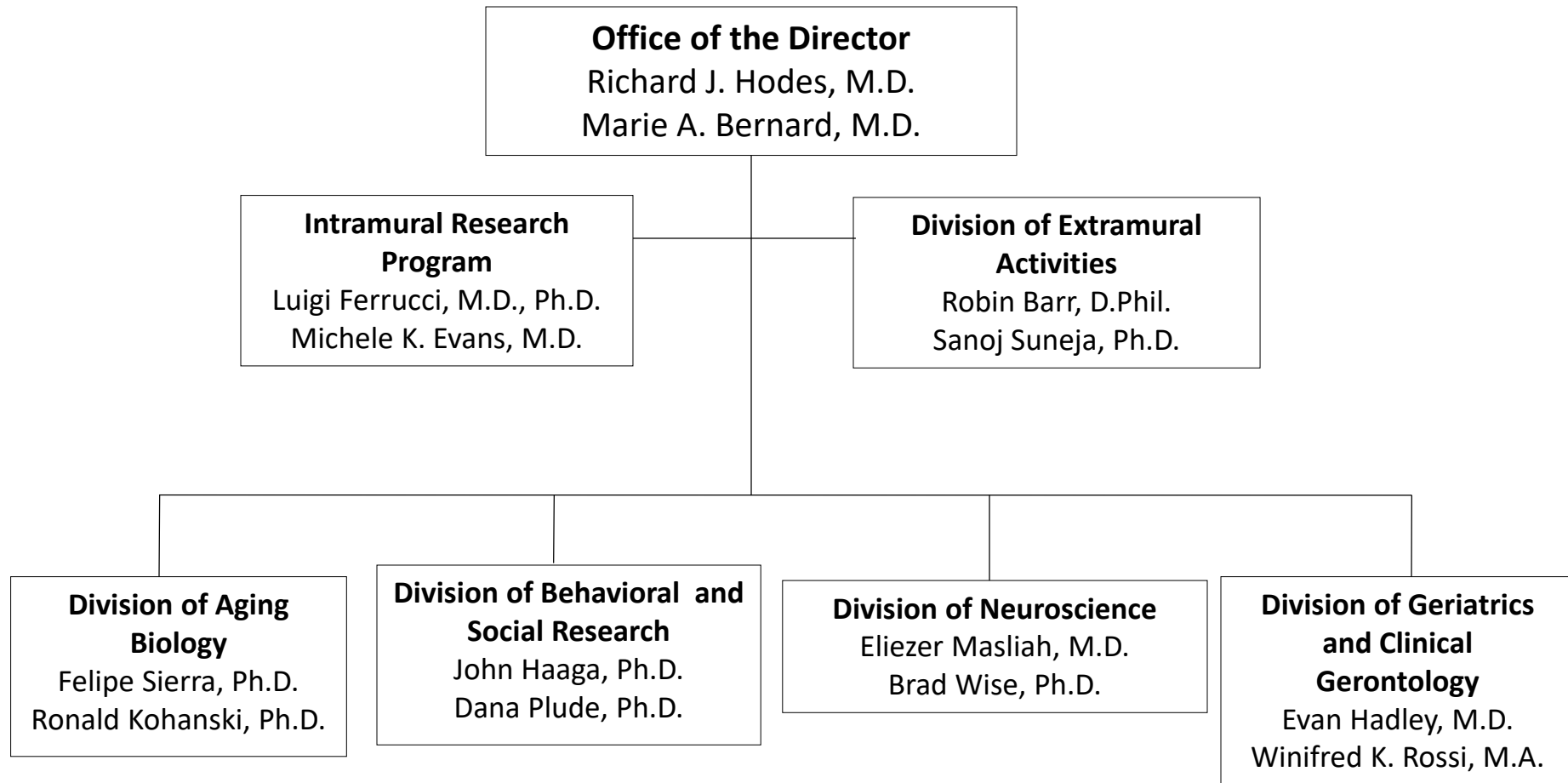
Richard J. Hodes, M.D.  
October 7, 2019



National Institute  
on Aging

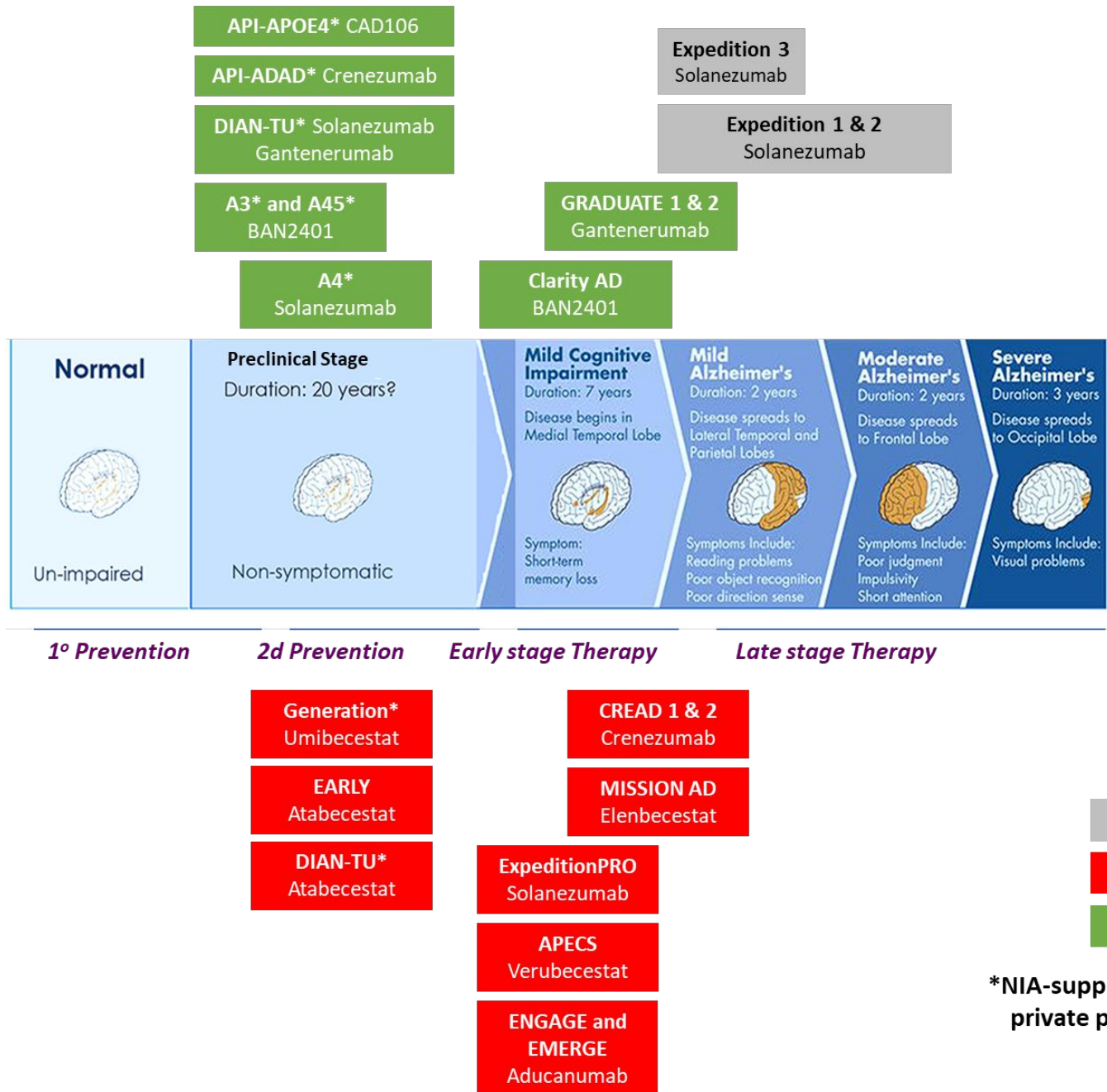
# NATIONAL INSTITUTES OF HEALTH

## National Institute on Aging Organizational Structure

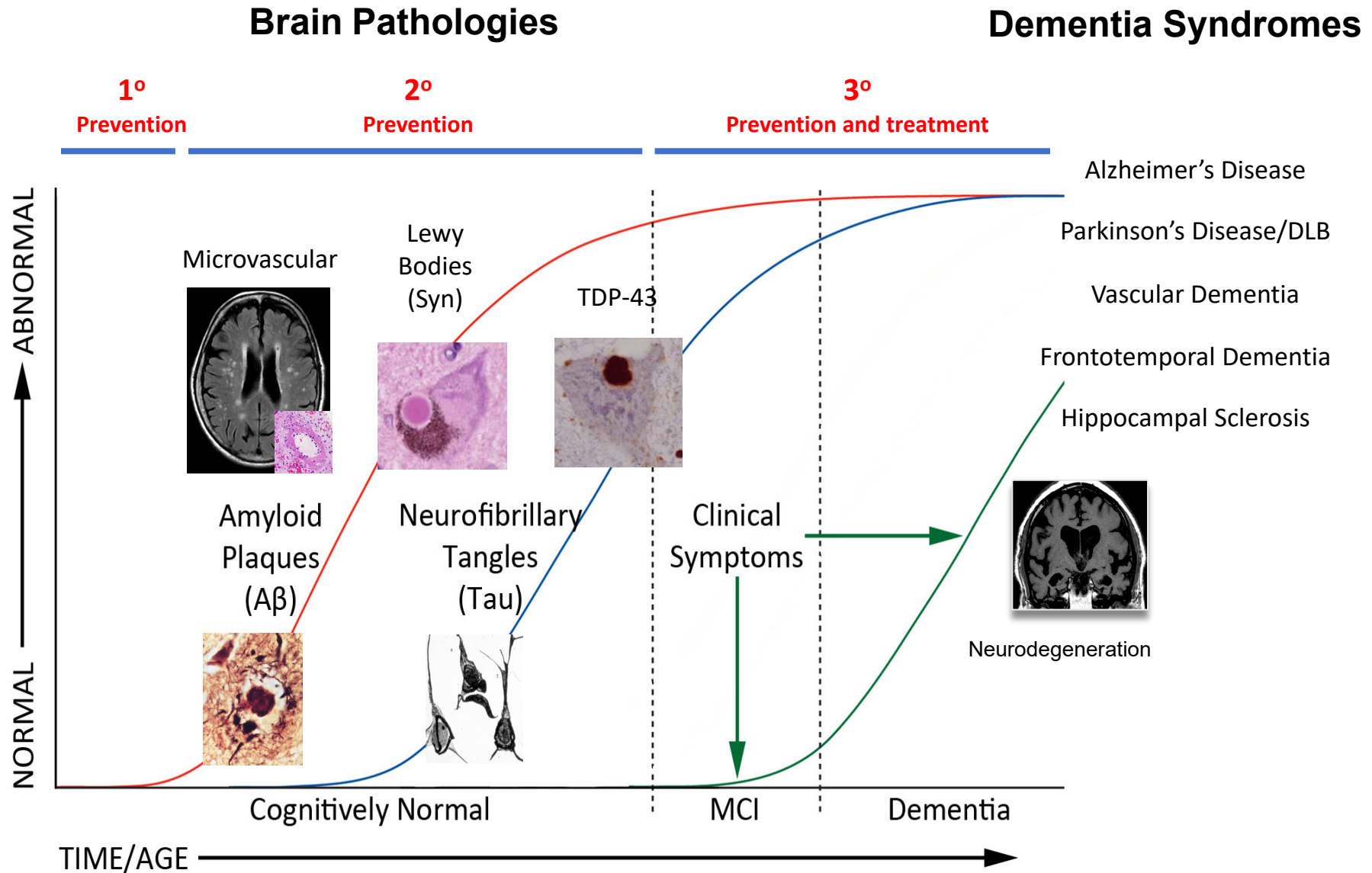


# Diversity of AD Clinical Studies

# AD Immunotherapy and BACE Inhibitor Phase III Trials



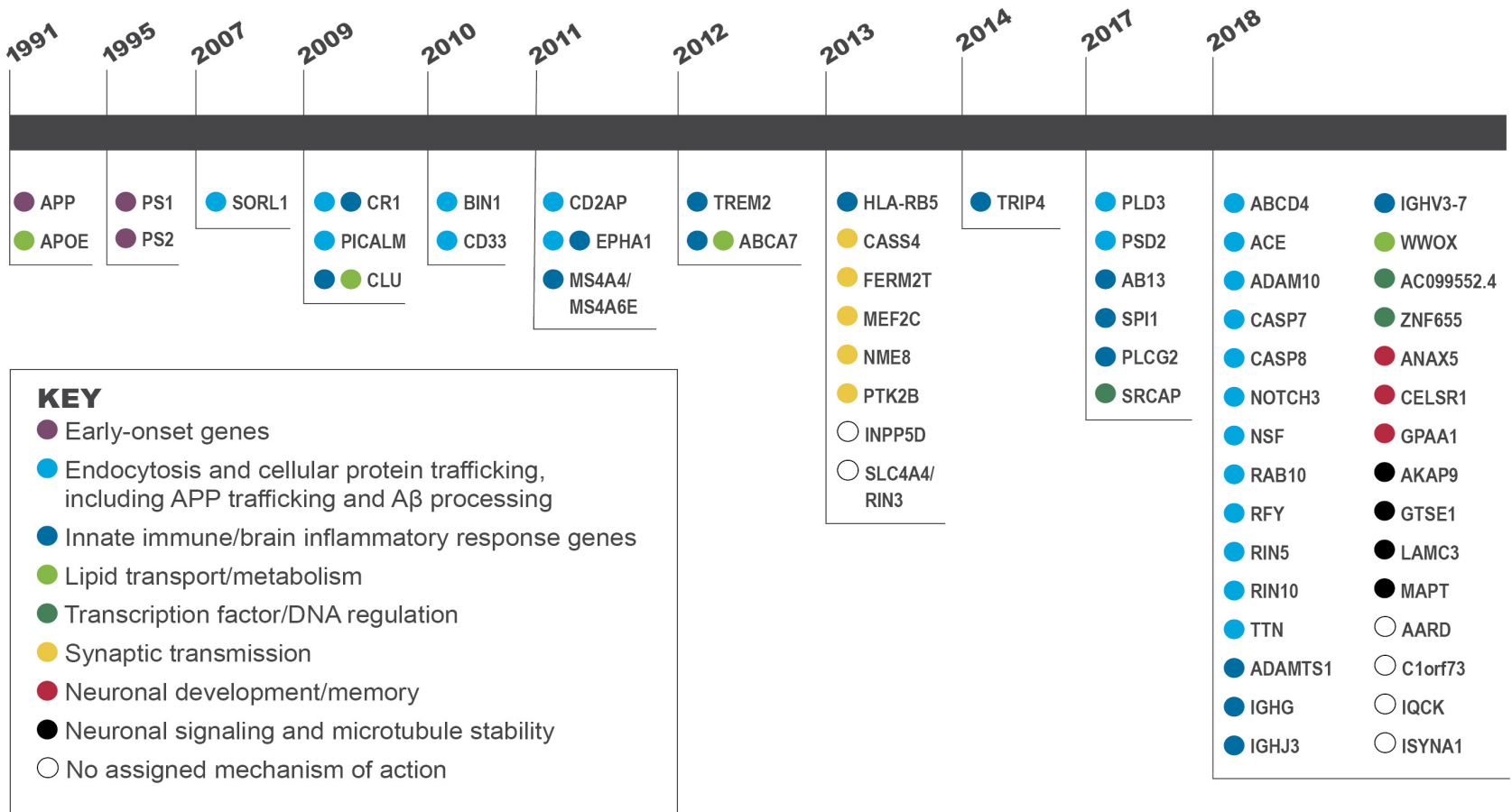
# The Progression of Alzheimer's Disease and Related Dementias



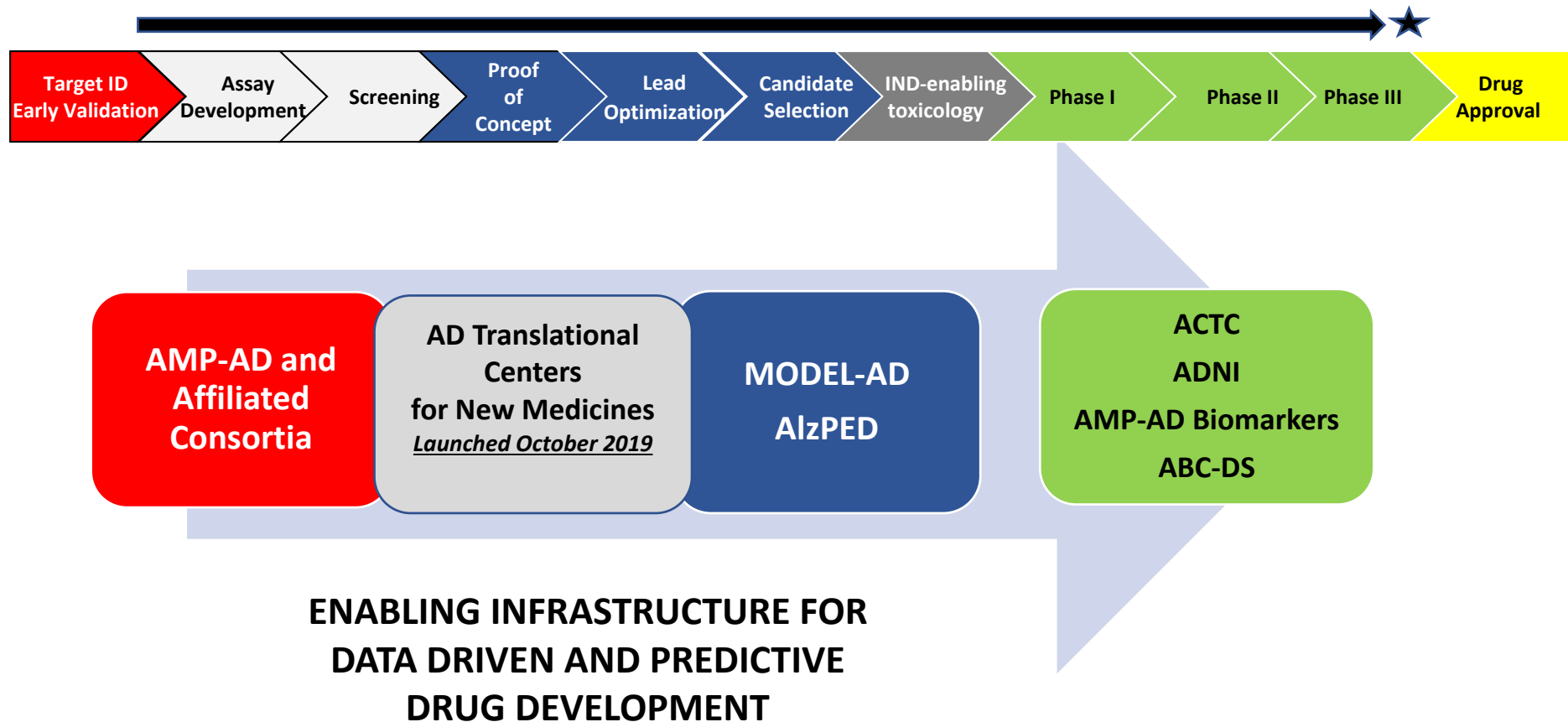
# Genetic Regions of Interest in Alzheimer's Disease

By year of discovery

NOTE: Color indicates mechanism of action in the body. See key below.



# NIA AD Translational Research Program: Diversifying the Therapeutic Pipeline





# NIA Alzheimer's Translational Research Program – since 2006

## Diversifying the Therapeutic Pipeline

### Next-gen anti-A $\beta$ therapeutics:

Sigma receptor – anti A $\beta$  oligomer therapy  
Gamma secretase modulators  
Anti-A $\beta$  oligomer immunotherapy  
A $\beta$  immunotherapy – DNA vaccine  
A $\beta$  aggregation inhibitors  
A $\beta$  catalytic antibodies

### Cytoskeleton/Tau:

Microtubule stabilizers  
CDK5-tau phosphorylation  
Calpain Inhibitors  
Tau aggregation inhibitors  
DYRK1A

### Oxidative Stress:

Nrf2  
 $\gamma$ -ketoaldehyde  
Glutathione S-transferase

### Vasculature:

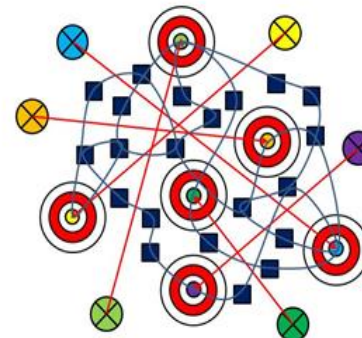
Angiotensin II receptor  
Mas receptor

### $\alpha$ Syn

Heavy chain  $\alpha$ Syn antibodies  
 $\alpha$ Syn aggregation inhibitors

### Multi-target therapeutics:

p38 $\alpha$ MAPK  
GABA Receptor and NO production  
Neurogenesis  
Proteostasis



### Neuroinflammation:

EP2 receptor  
P38 MAPK  
CRAC Channel  
NLRP3 Inflammasome  
TNF $\alpha$

### Neurotransmitter Receptors and Growth Factors:

mGluR5 Receptor  
GABA Receptor A alpha5  
TrkB  
P75 Neurotrophin Receptor

### Synaptic Plasticity/Neuroprotection:

Calcineurin  
Ryanodine Receptor  
Excitotoxic Amino Acid Transporter  
Somatostatin Receptor subtype-4

### Metabolism and Bioenergetics:

Insulin Receptor  
Mitochondria

### ApoE4

ApoE-antibodies  
Antisense oligonucleotides

### Heat Shock Proteins:

HSP 90

### Cell therapies:

Neural Stem Cell transplantation

### Cell Death:

CDK4/6  
OMA1





## Progress over 4 years:

- Centralized data resource established- AMP-AD portal
- All data sharing deliverables met
- A variety of experimental validation models developed
- Novel biomarker discovery initiated
- Over 100 candidate targets nominated; currently undergoing data-driven prioritization for further preclinical validation

## Candidate Targets

SNRNP70	TGFBR1	CCDC85C	RGS4
U1-A	TGFBR2	CIC	SCN2A
U1-C	BMPRI1A	CSRP1	OLFM3
SNRPN	BMPRI1B	DAB2IP	SLC22A10
SNRPB	CRHR1	FAM63A	ENAH
PLCD1	TREM2	FURIN	WWTR1
PTRHD1	TYROBP	HMG20B	LRP10
SFRP1	S100A8	IGFBP5	SYN
PPP1R7	S100A9	ISYNA1	PCSK1
DNM3	P2RY2	KIF1C	KMO
RTN4	P2RX7	PADI2	PTTG1IP
EPB41L3	P2RY12	SLC38A2	MLIP
TUBB3	P2RY13	SNAP25	DLGAP1
PLEC	OSMR	STX1A	MOAP1
ANXA5	TLR4	STXB3	PRKCB
MSN	CR1	SV2B	YAP1
CD44	CSF1R	SYT1	GNA13
LMNA	CX3CR1	SYT12	TRIM56
	SPI1	ZBTB47	
	TNFRSF10A	VGFB	
	TNFRSF10B	PLXNB1	



Agora

[agora.ampadportal.org](http://agora.ampadportal.org)

### Search for a gene

Please type a gene symbol in the search box below.

Search by gene name



### View nominated target list

list of genes nominated by AMP-AD groups as targets of interest. Each AMP-AD team has deployed state of the art systems biology methods to integrate across genomic, transcriptomic, and proteomic data from over 2000 participant brains. Each target represents a gene with multiple lines of evidence and is a candidate driver of Alzheimer disease etiology.

### Popular community searches

PIAS2

APC

SNX2

[View all nominated targets](#)

# Ongoing NIA AD/ADRD and Related Intervention and Prevention Trials (~200)

36 Early-stage Clinical Drug Development (Phase I and Phase II Clinical Trials)

Amyloid (10)  
Receptors (4)  
Neuroprotection (4)  
Metabolism and Bioenergetics (2)  
Vasculature (2)  
Growth Factors and Hormones (2)  
Multi-target (2)  
Inflammation (2)  
Oxidative Stress (2)  
Other (6)

8 Late-stage Clinical Drug Development (Phase II/III and Phase III Clinical Trials)

Amyloid (6)  
Neuroprotection (2)

90 Non-Pharmacological Interventions

Exercise (19)  
Diet (6)  
Cognitive Training (22)  
Assistive Tech. (9)  
Sleep (5)  
Combination Therapy (11)  
Other (18)

8 Clinical Therapy Development for the Neuropsychiatric Symptoms of AD/ADRD

Pharmacological (5)  
Non-Pharmacological (3)

61 Care and Caregiver Interventions

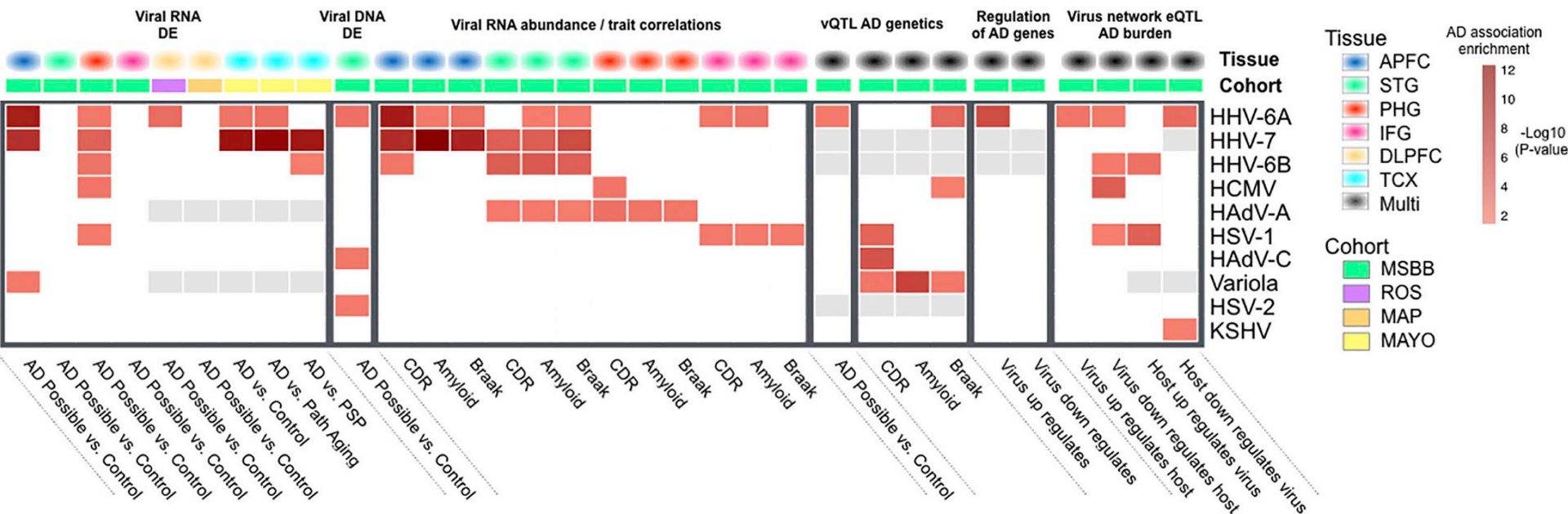
Improving Care for PWD (25)  
Improving care provided by family or informal caregiver (36)

[www.nia.nih.gov/research/ongoing-AD-trials](http://www.nia.nih.gov/research/ongoing-AD-trials)

# Research on Mechanisms of AD



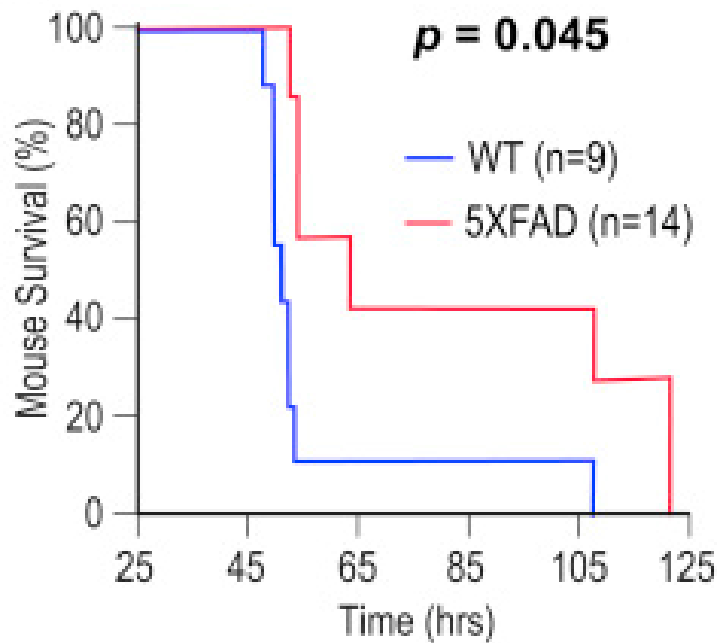
# Data Sharing Enables Researchers to Find New Evidence Linking Viruses to AD Biology



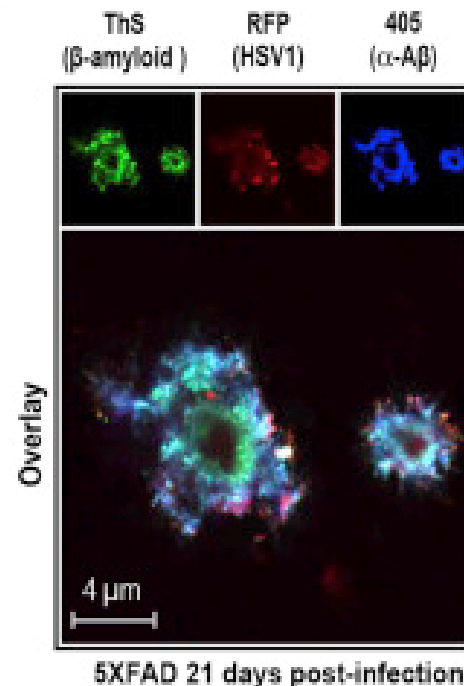
**Human herpesvirus 6A and 7 were more abundant in Alzheimer's disease samples than non-Alzheimer's**

Readhead et al. (2018). *Neuron* 99: 64-82.

# Amyloid-beta aggregates as a protective response against infection in a mouse model of Alzheimer's disease



Alzheimer's disease model mice survive longer than control mice after infection with herpes simplex virus 1.

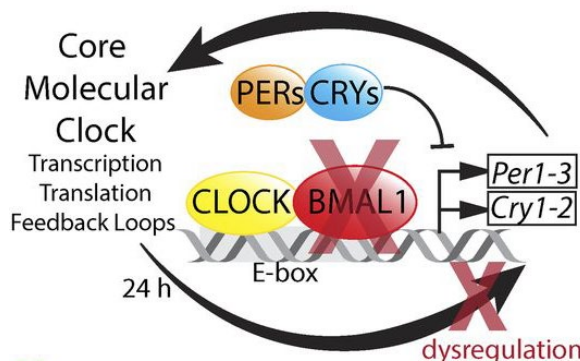
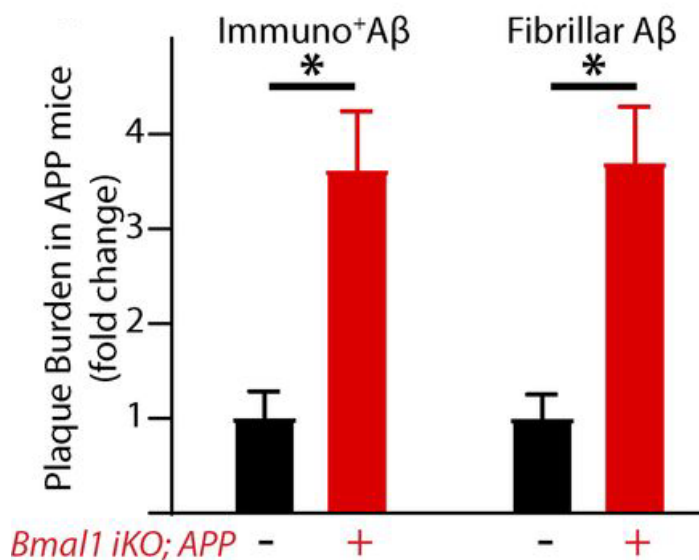


Herpes simplex 1 is sequestered by amyloid-beta, generating plaques in a mouse model of Alzheimer's disease.

Eimer et al. (2018). *Neuron* 99: 56-63

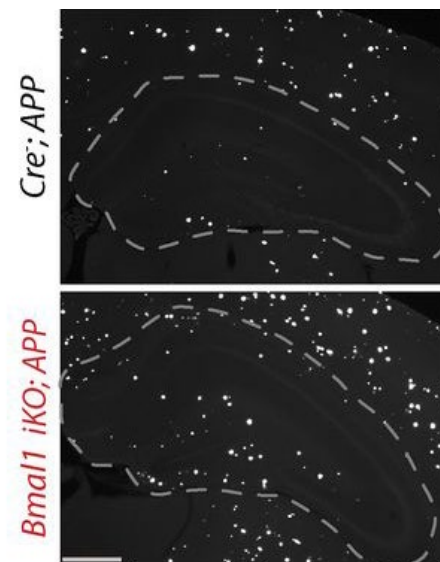
# Disrupting the Circadian Clock Causes an Increase of Amyloid- $\beta$ in the Brain

Levels of Amyloid- $\beta$  in the Brain



Knocking out a gene that controls the circadian clock causes Amyloid- $\beta$  levels to rise in the brain in a mouse model of Alzheimer's disease.

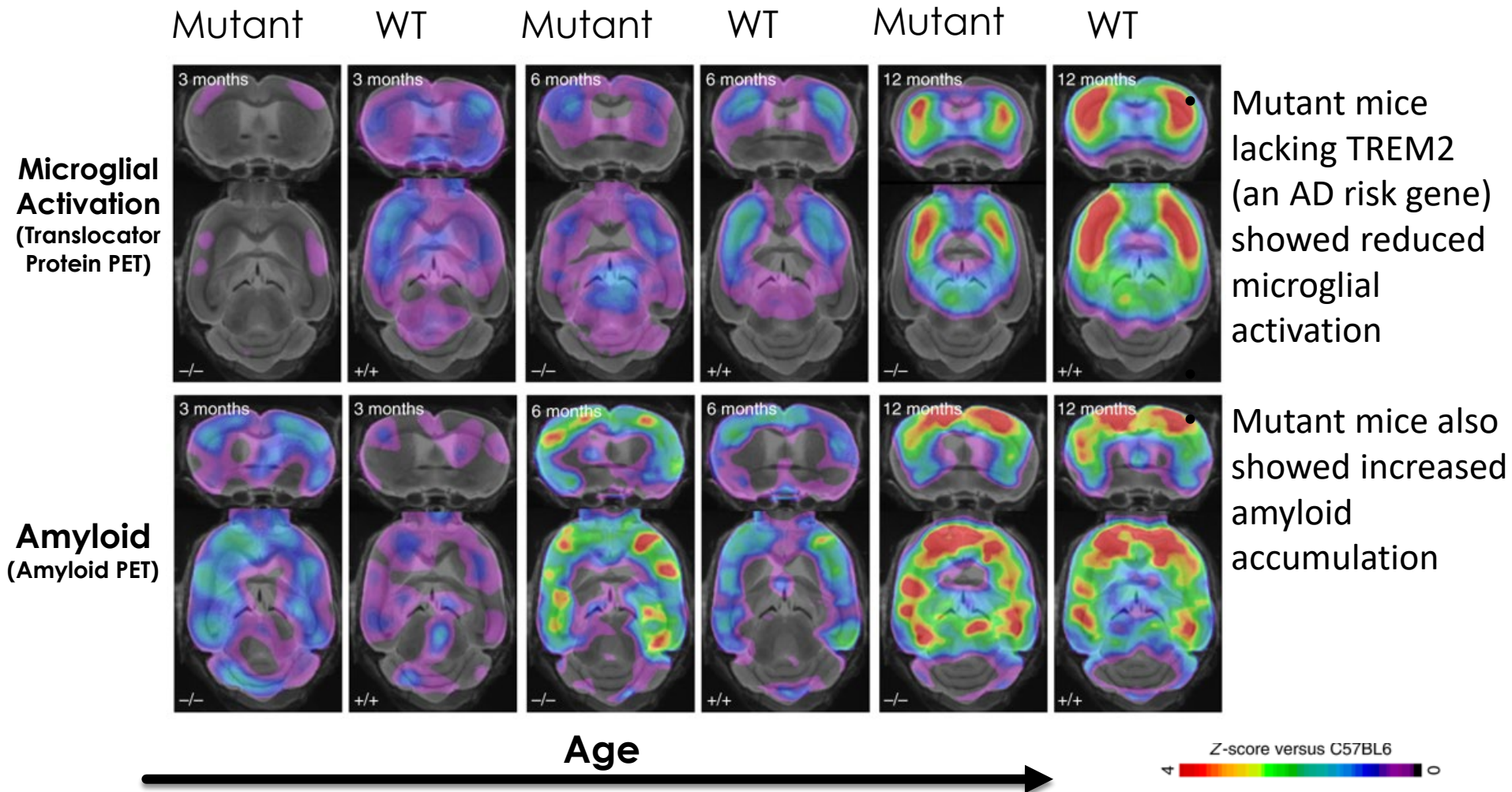
Representative Brain Images-  $A\beta$  staining



Kress GJ, et al. (2018). *J Exp Med* 215(4):1059–1068



# TREM2 helps microglia clear amyloid plaques in mouse model

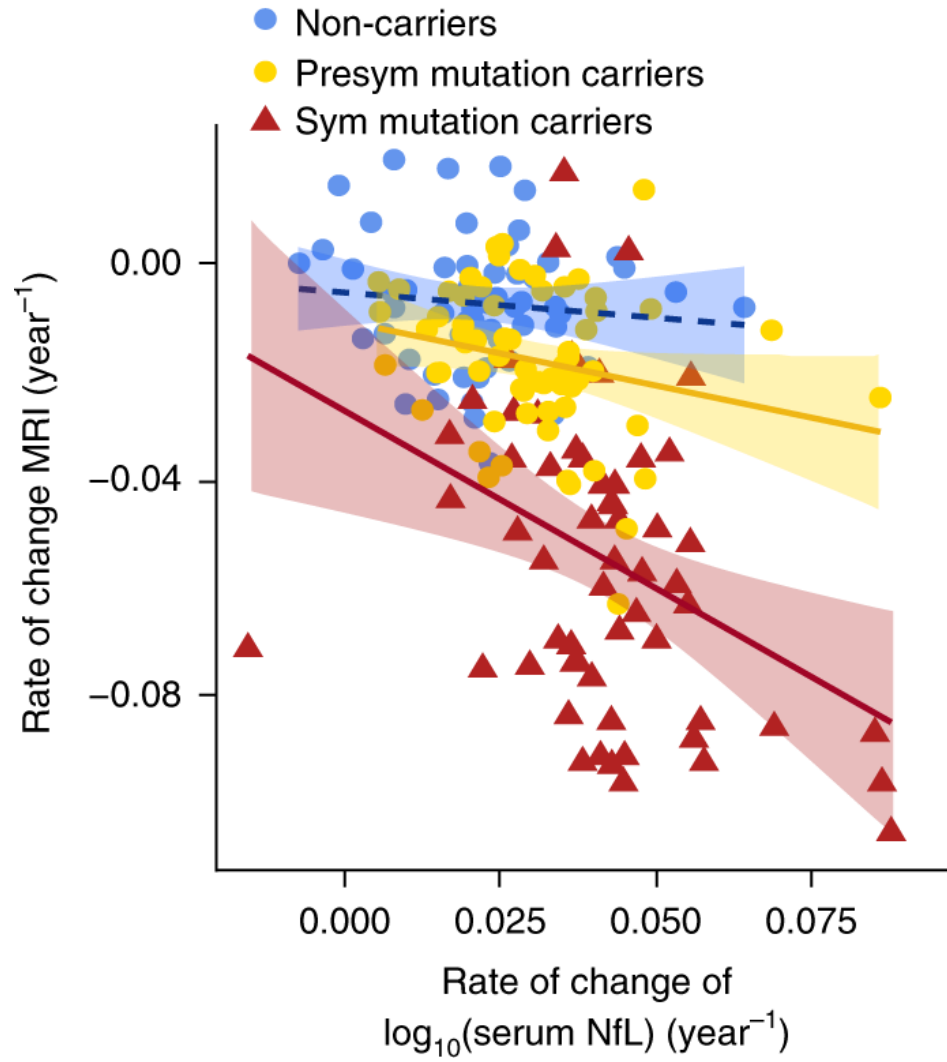




# Dementia Biomarker Studies



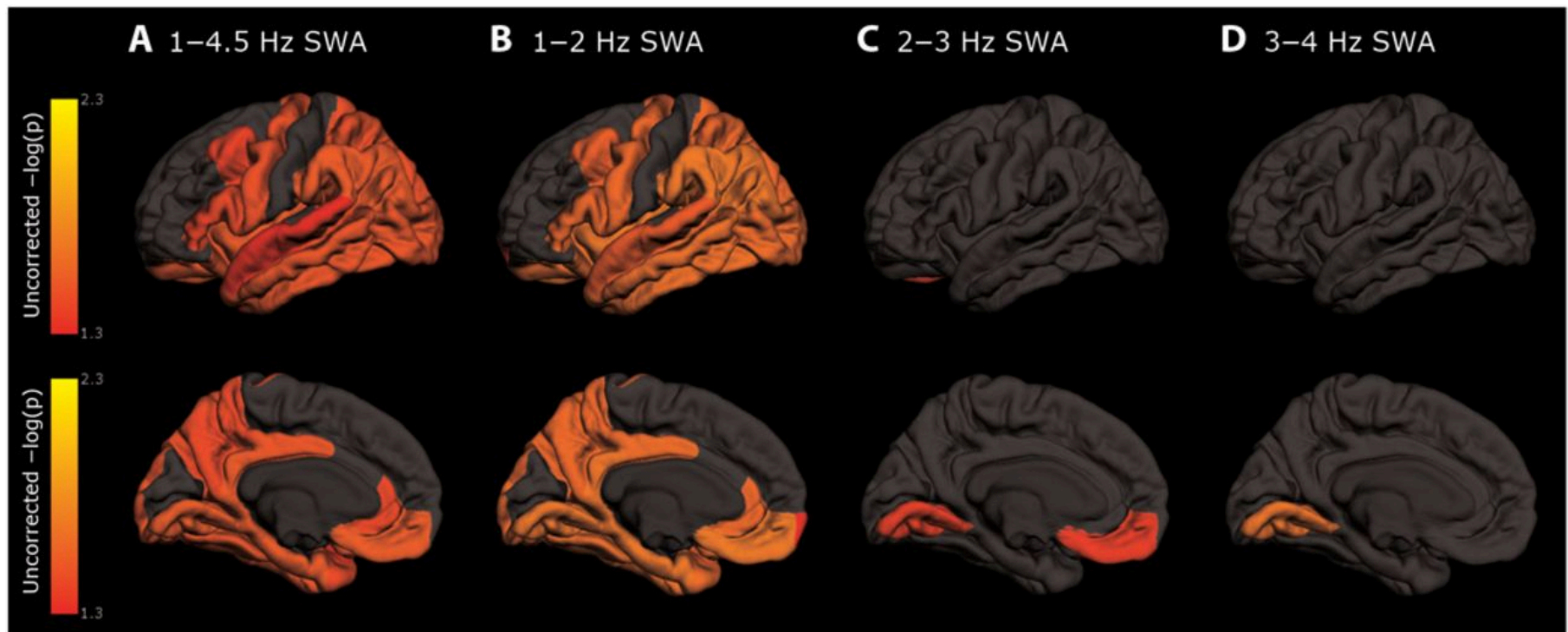
# Blood Test Shows Promise in Predicting AD



Preische, O. et al. (2019). *Nature Medicine*, 25(2):277-283.

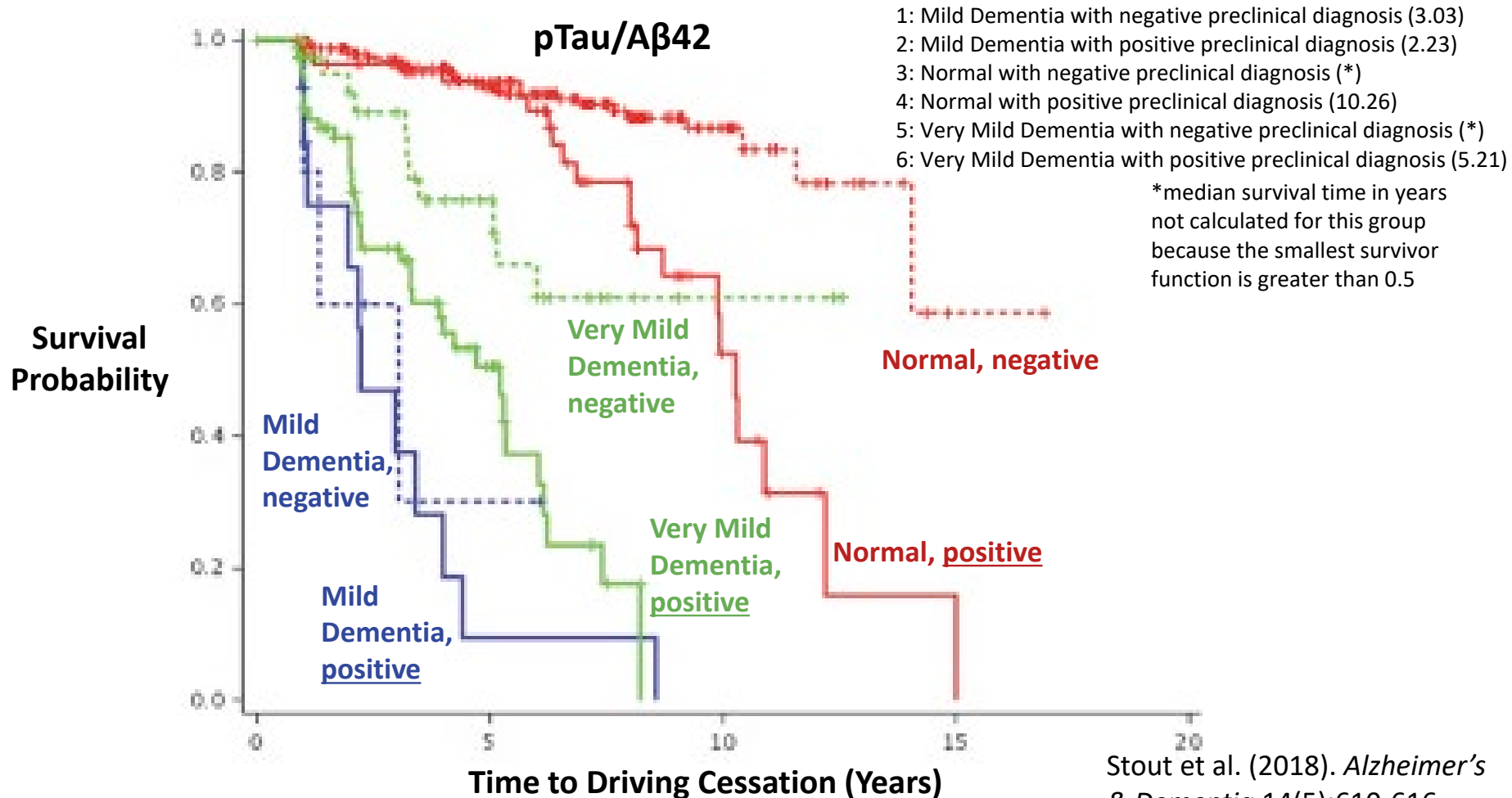
# Reduced NREM Sleep is associated with increased tau

Regional differences in the relationship between non-rapid eye movement (NREM) slow wave activity (SWA) and tau PET



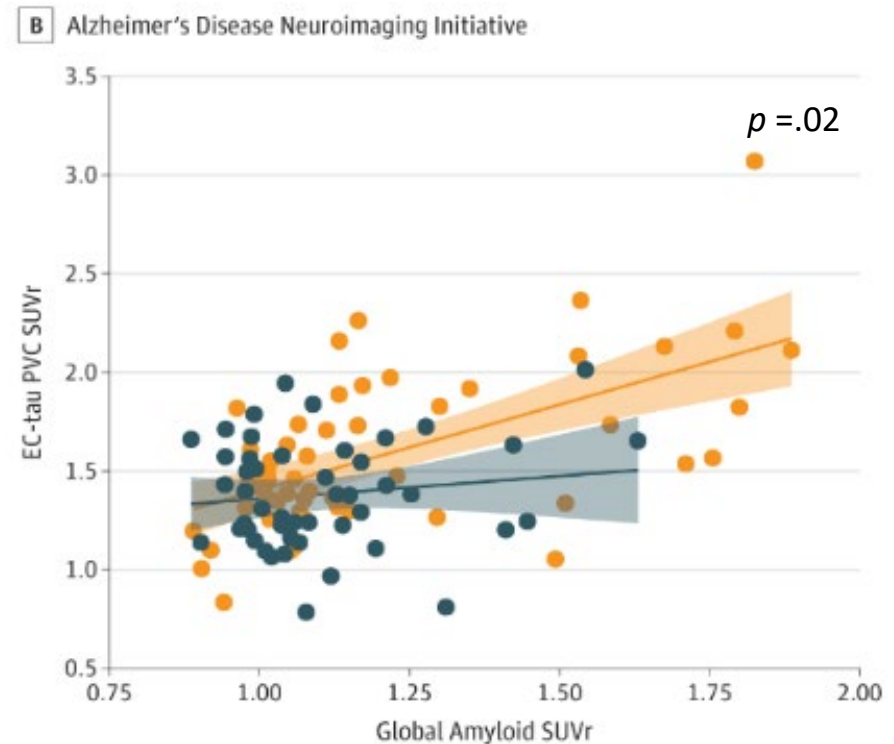
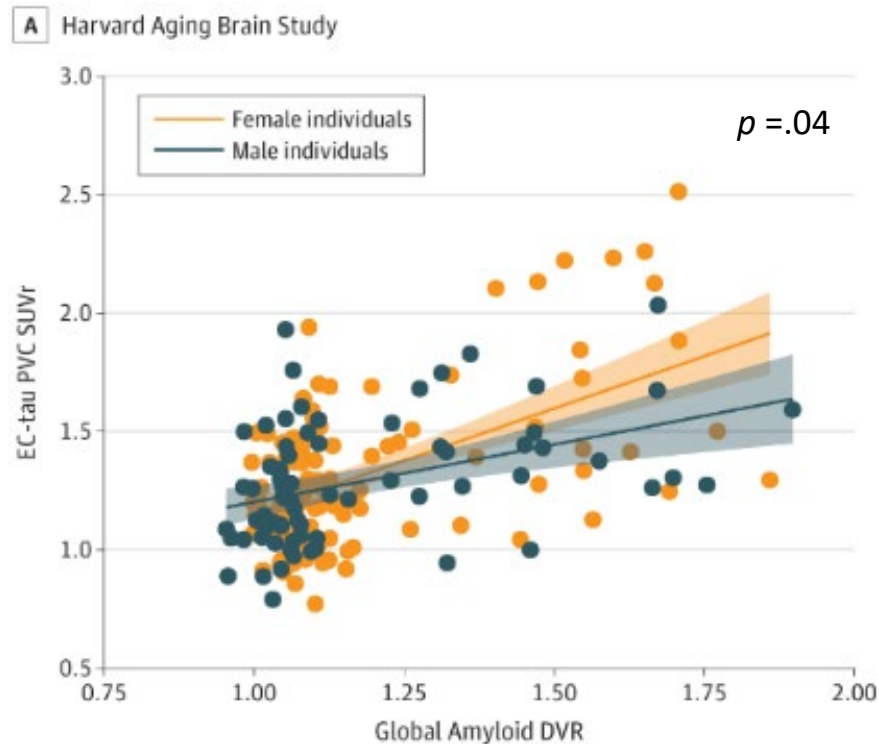
Lucey et al. (2019) *Science Trans Med.* 11(474):191-204

# Positive AD Biomarkers Predict More Rapid Driving Cessation



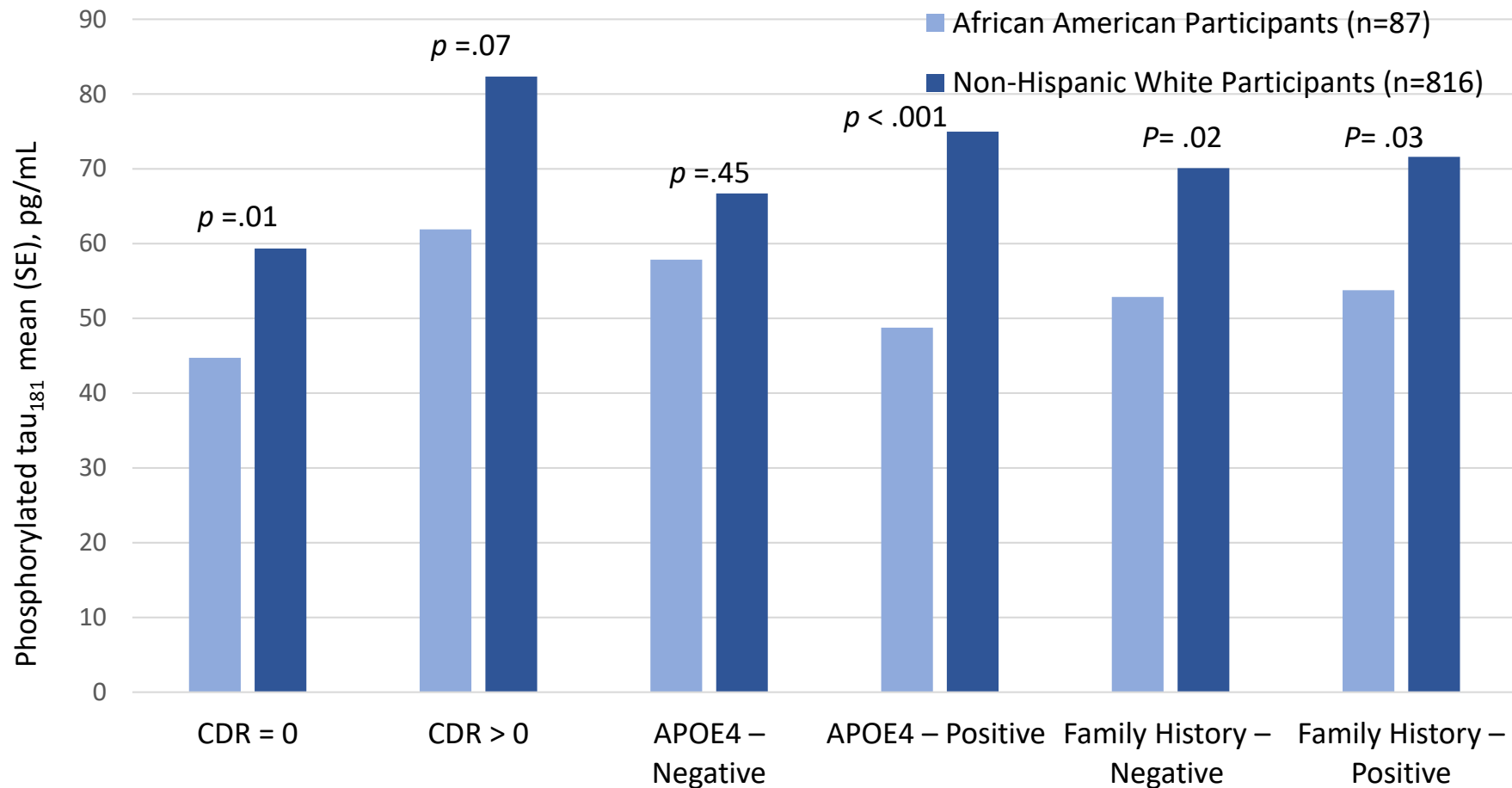
Stout et al. (2018). *Alzheimer's & Dementia* 14(5):610-616.

# Women Have Higher Levels of Tau at Same Level of Amyloid Burden



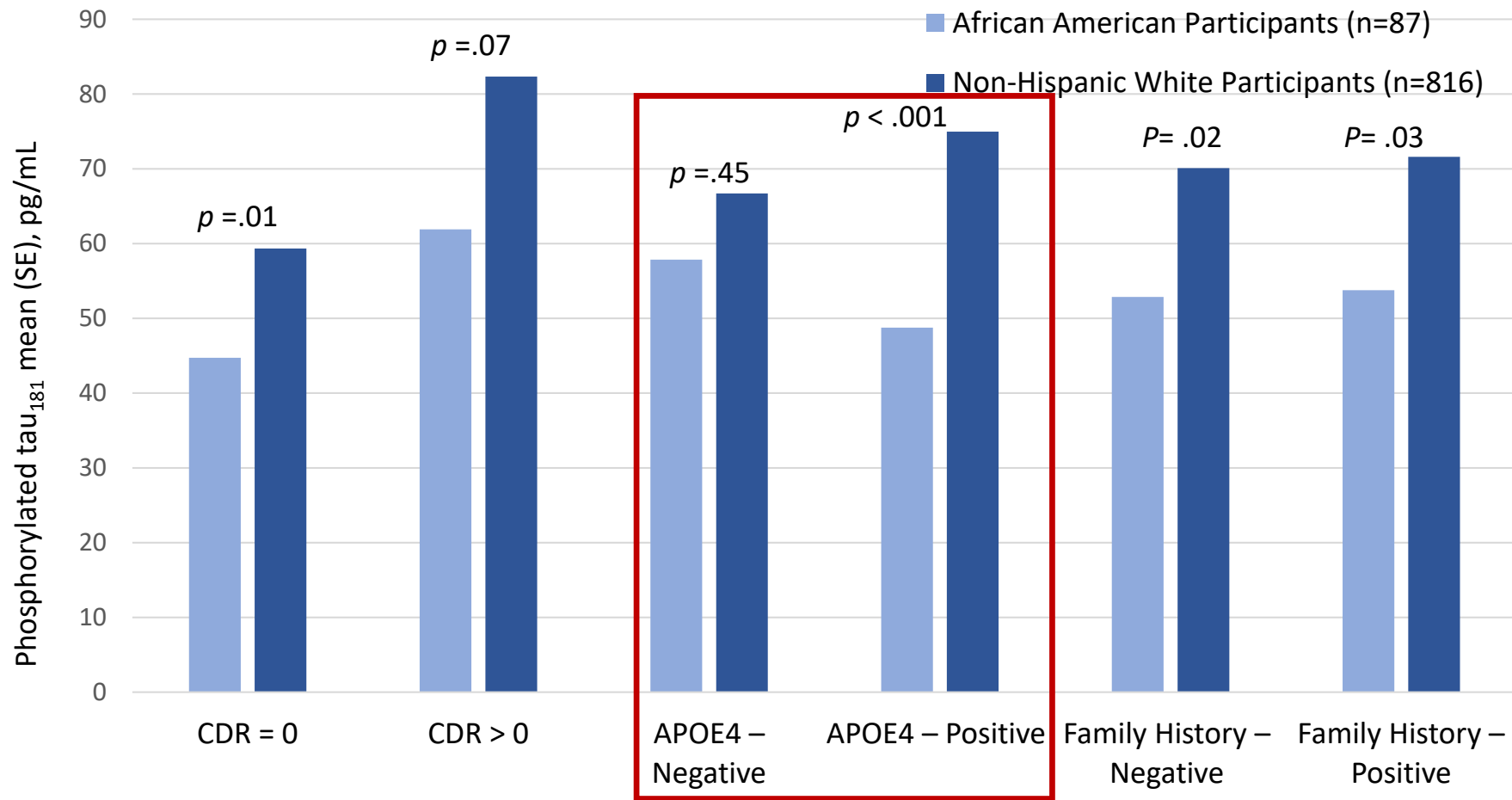
Buckeley et al. (2019). *JAMA Neurology* 76(5), 542-551.

# Interactions of APOE $\epsilon$ 4 with tau in African American individuals may differ from its interactions with tau in white individuals



Adapted from Morris et al. (2019). *JAMA Neurology* 76(3), 264-273.

# Interactions of APOE $\epsilon$ 4 with tau in African American individuals may differ from its interactions with tau in white individuals



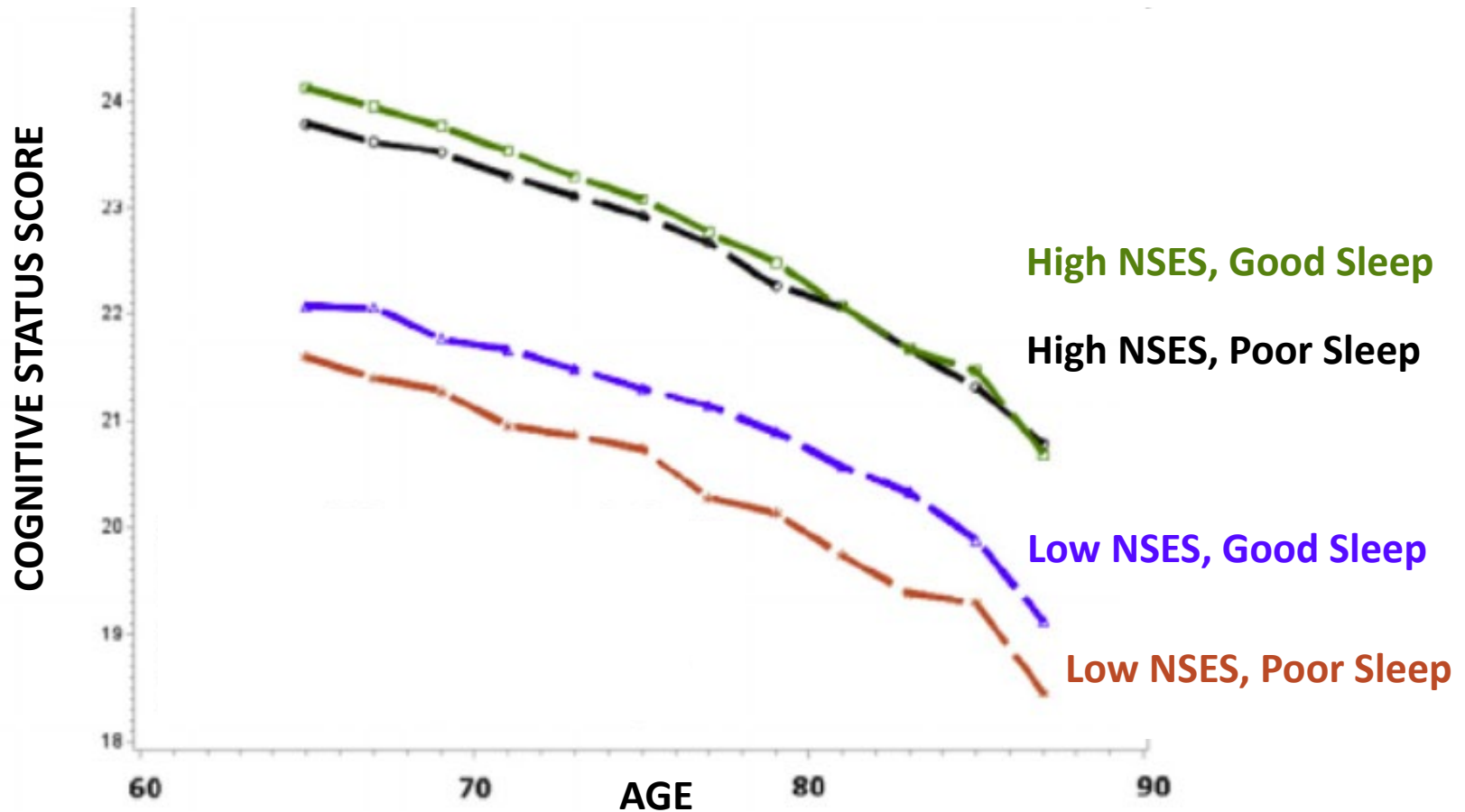
Adapted from Morris et al. (2019). *JAMA Neurology* 76(3), 264-273.



# Demographic Studies

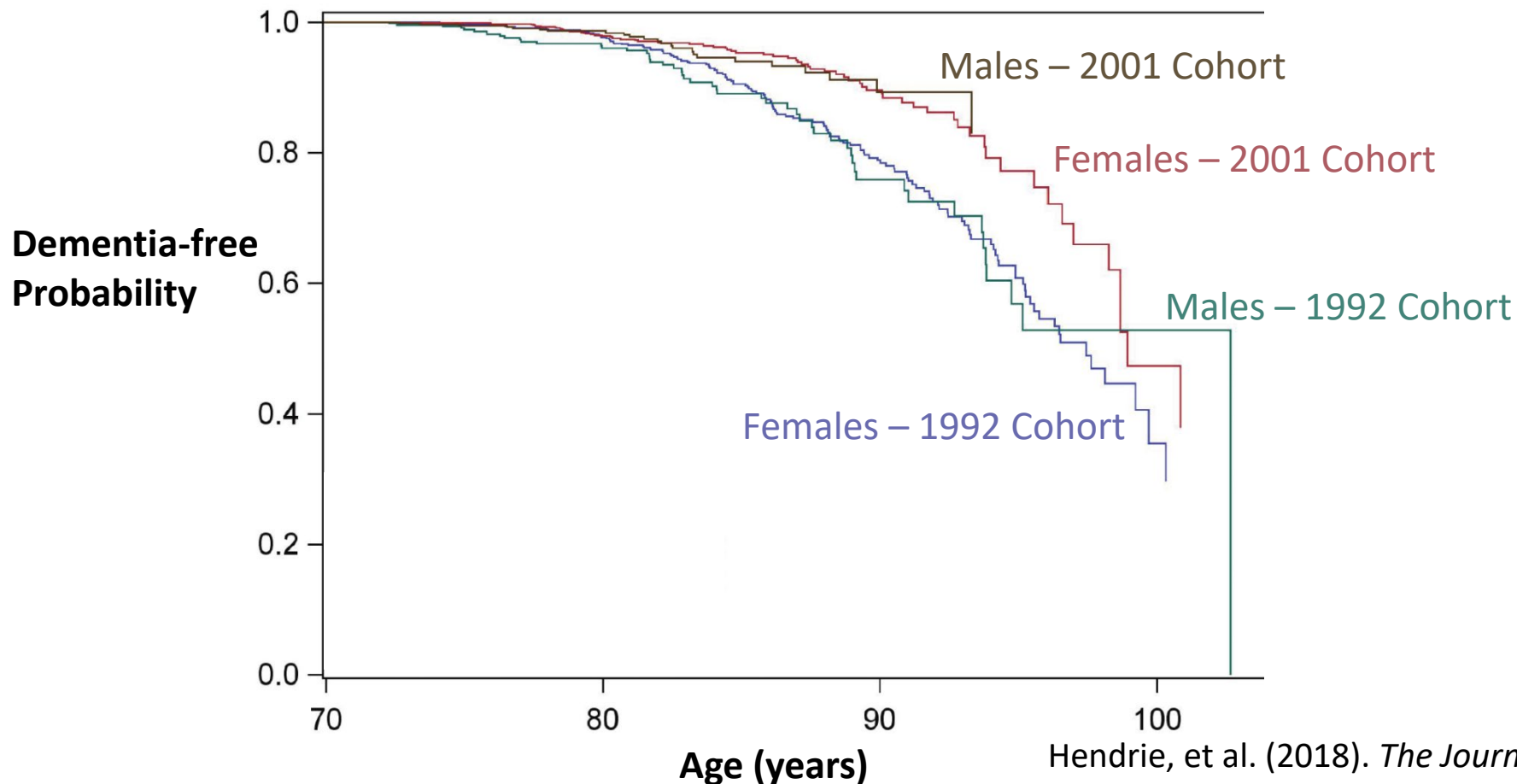


# Association between Sleep and Cognition Stronger Among Individuals with Low Neighborhood SES (NSES)



Hunter, et al. (2018). *Alzheimer's & Dementia* 14(4): 454-461.

# Younger African American Cohorts (with Higher Educational Attainment) have Increased Probability of Being Dementia-Free



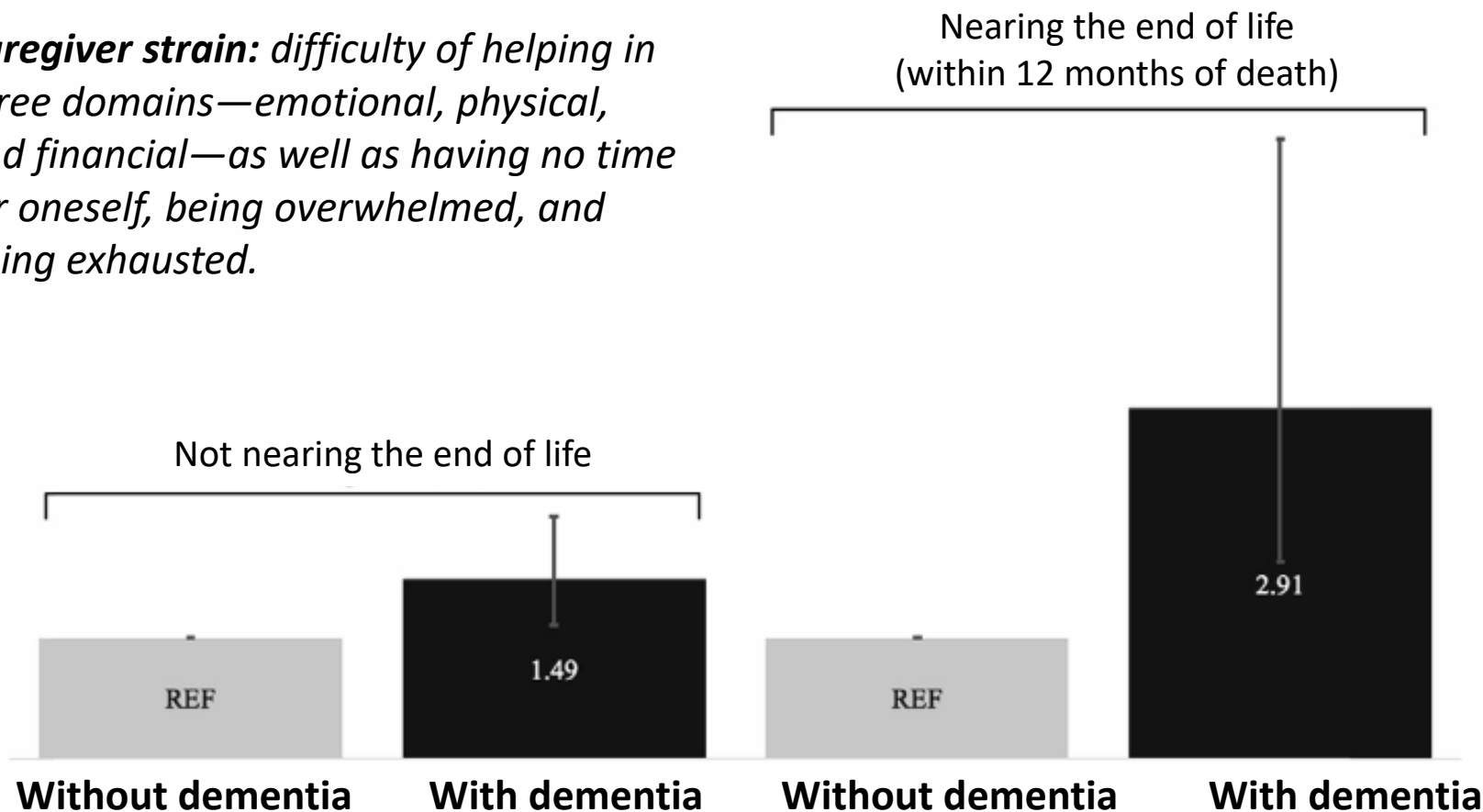
Hendrie, et al. (2018). *The Journals of Gerontology: Series B* 73(1): S82-S89

# Care and Caregiver Studies



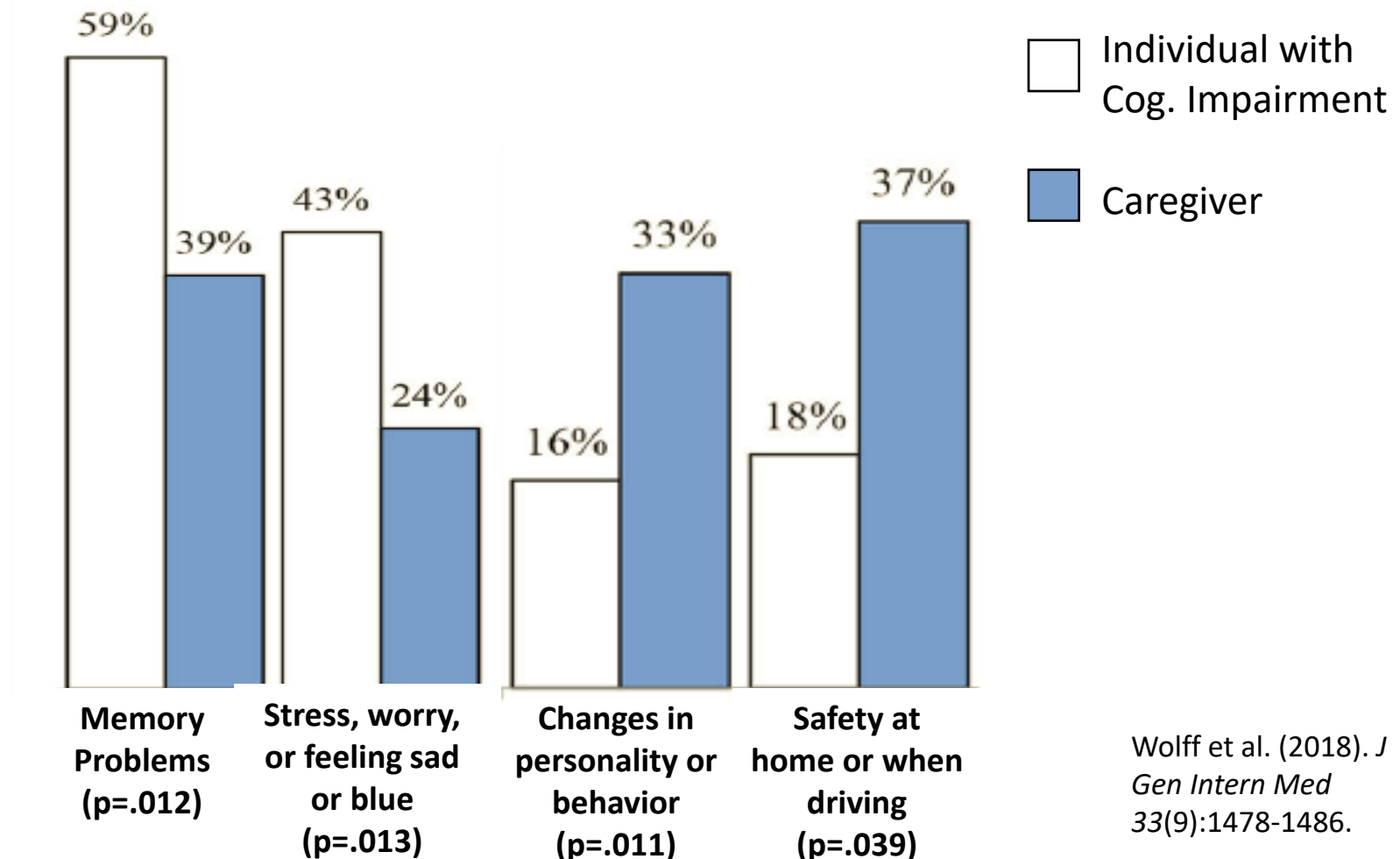
# Caregivers Have Increased Strain when Person Living with Dementia is at the End of Life

**Caregiver strain:** difficulty of helping in three domains—emotional, physical, and financial—as well as having no time for oneself, being overwhelmed, and being exhausted.



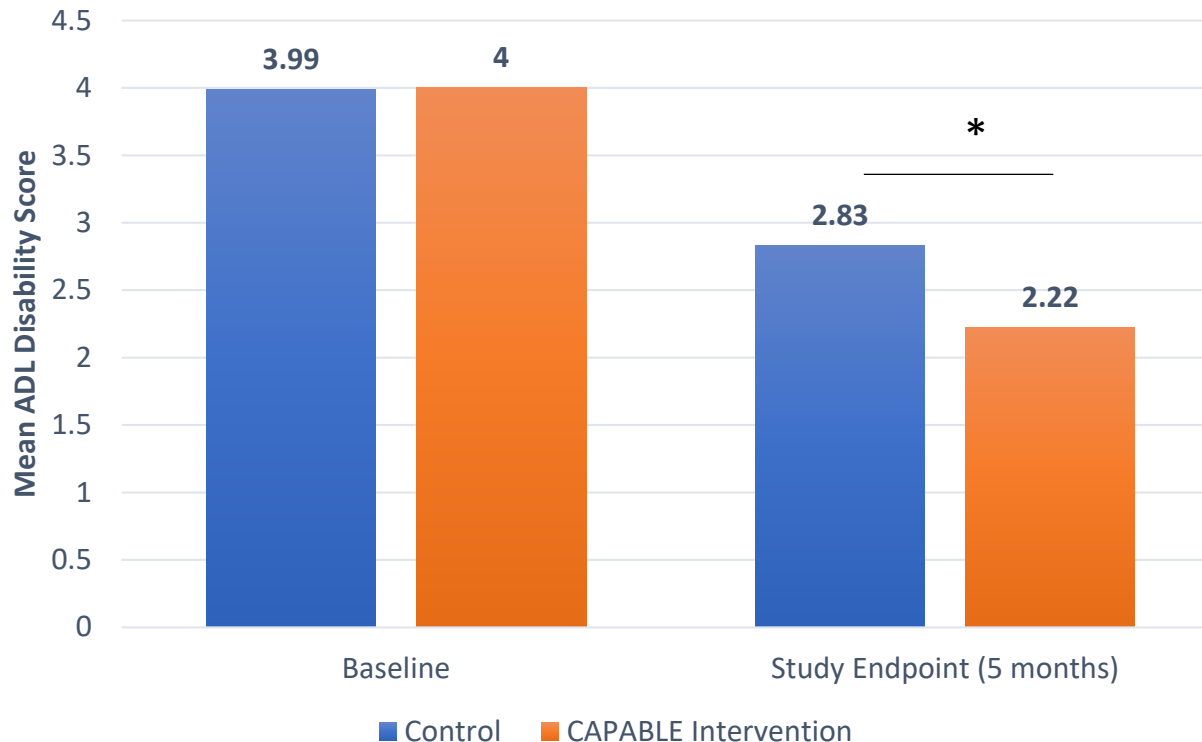
Vick, et al. (2019). *Pain & Symptom Mgmt* 57(2): 199-208.

# Individuals with Cognitive Impairment Care More About Memory and Mood; Caregivers Care More About Safety and Behavior



# CAPABLE Intervention Reduced Disability in Activities of Daily Living by 30% for Low-income Baltimore Older Adults

Mean Activities of Daily Living (ADL) Scores at Baseline & Study Endpoint



## Intervention =

- Up to 6 Home visits by OT, RN
- Implementation of personal plan based on assessments and participant goals
- Home repairs (up to \$1300)
- Significant reduction in ADL disability scores compared with participants in control group. Adjusted Effect Size: 0.70 (0.54-0.93),  $p = .01$ .

Szanton, S.L., et al. (2019). *JAMA Intern Med.*,179(2):204–211

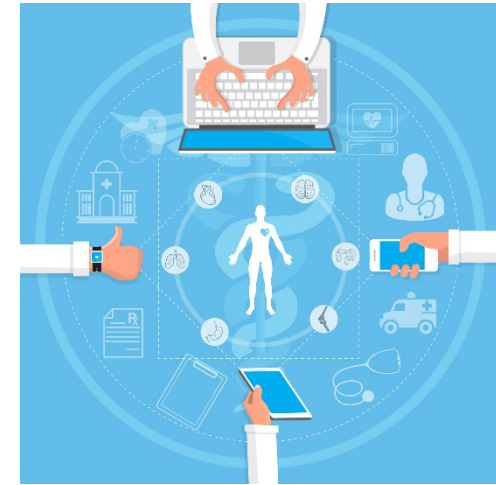




**CAPABLE**

# iCare-AD/ADRD Challenge- Winners Announced Today!

- NIA received 33 applications for mobile device applications or web-based methods
- 1<sup>st</sup> place: MapHabit- mobile app that provides behavior prompts with customizable picture and keyword visual maps to assist memory-impaired people with accomplishing activities of daily living
- 2<sup>nd</sup> place: Dementia Care Software System (UCLA)- case management software, which integrates with the electronic health record system
- 3<sup>rd</sup> place: Caregiver411 (N.C. A&T State)- mobile app that enables dementia caregivers to foster social connections through a messaging center and obtain tailored resources for those they care for

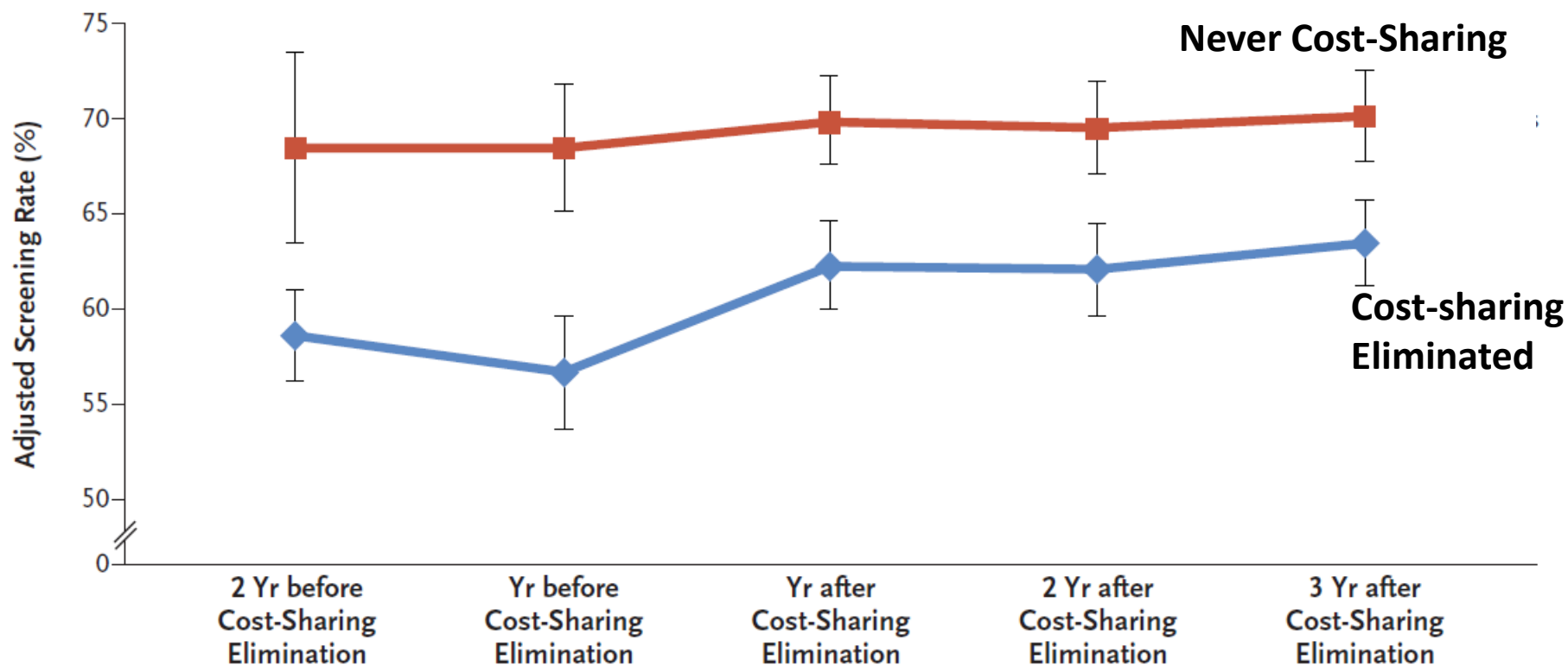


<https://nia.nih.gov/challenge-prize>

# Longevity and Healthy Aging Studies

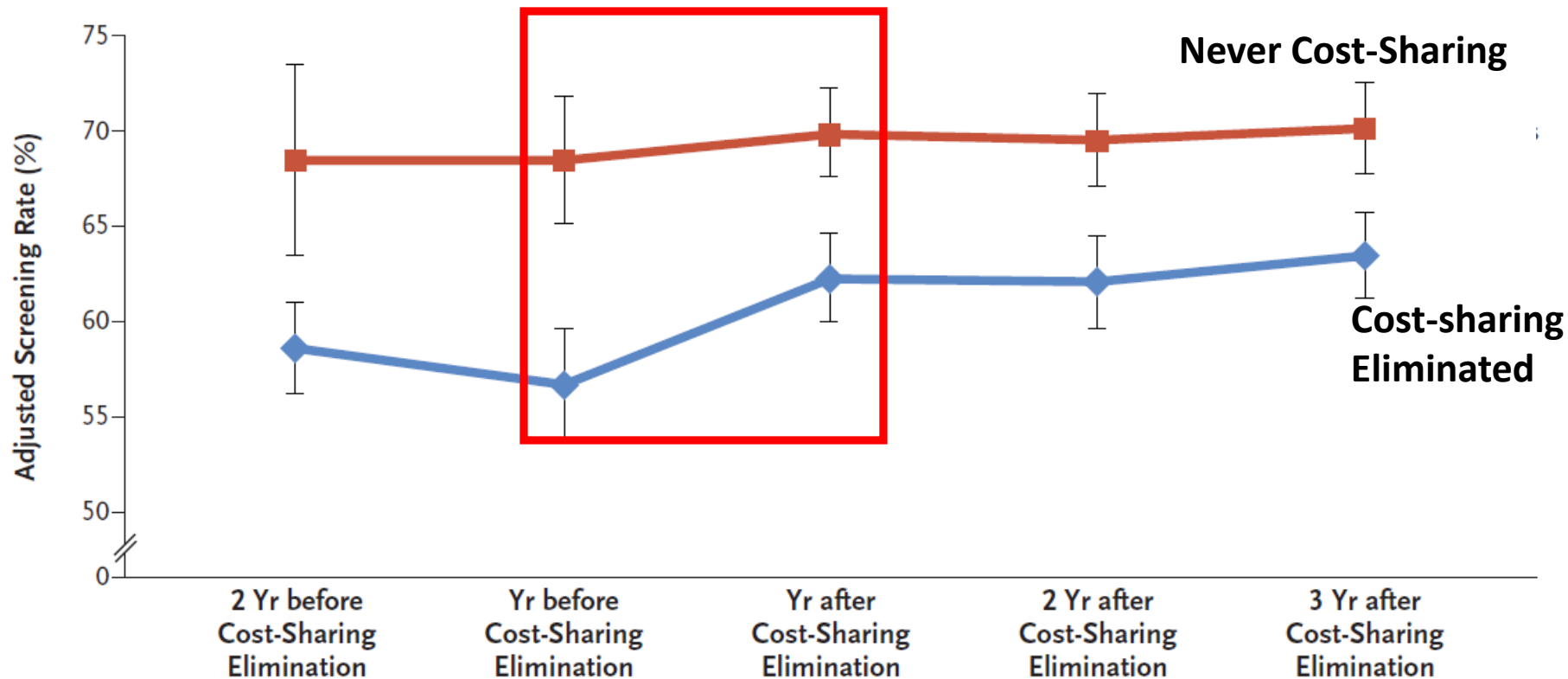


# Eliminating Cost-sharing Increases Biennial Mammography Screening in Medicare Advantage



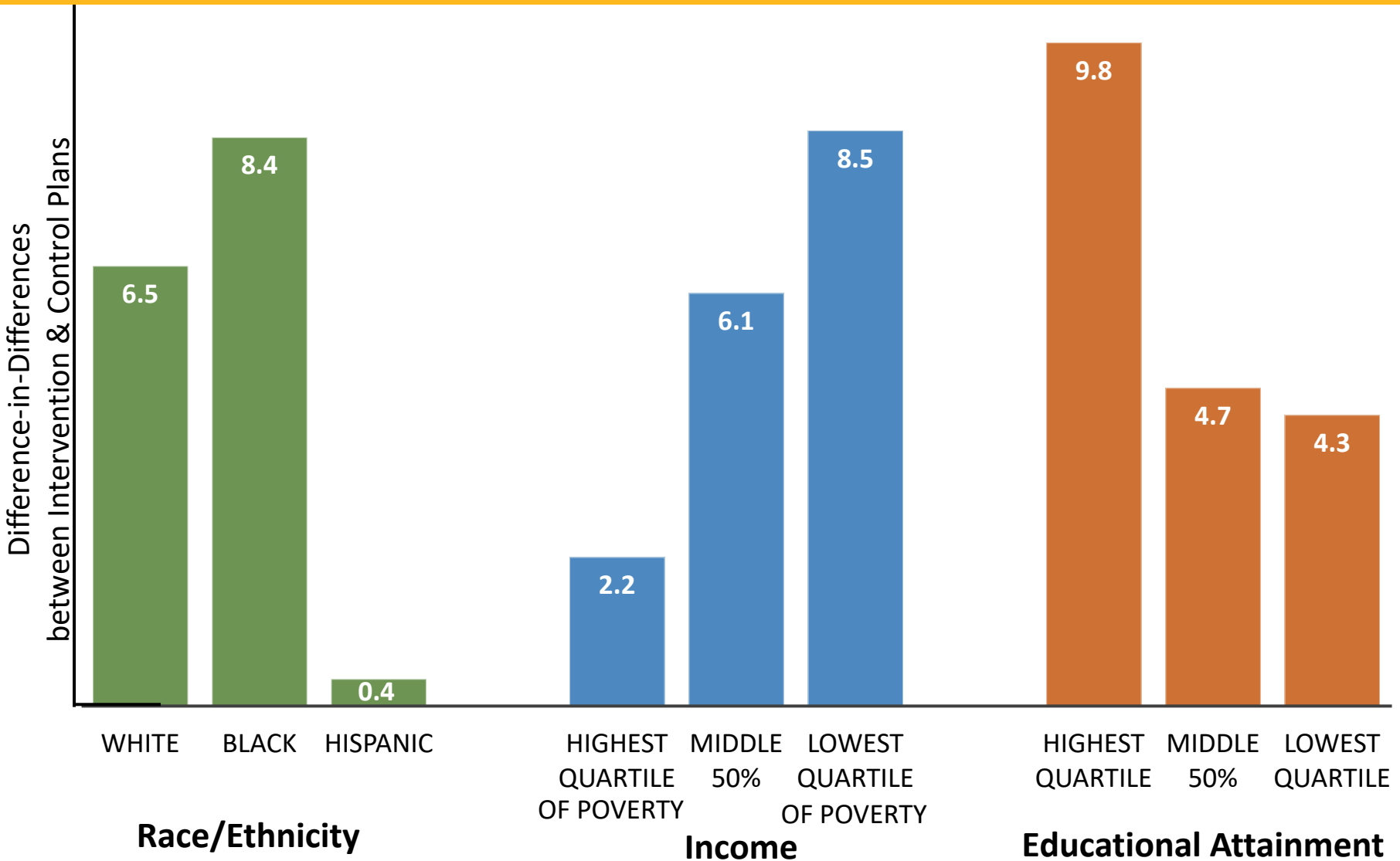
Trivedi et al. (2018). *NEJM* 378(3):262-269

# Eliminating Cost-sharing Increases Biennial Mammography Screening in Medicare Advantage



Trivedi et al. (2018). *NEJM* 378(3):262-269

# Changes in Rates of Mammography Screening By Race/Ethnicity, Income, & Education



# SPRINT-MIND Research Question

SPRINT **M**emory and Cognition **in** **D**ecreased Hypertension

*Does intensive blood pressure control compared with standard control reduce the occurrence of dementia?*



*Randomized Controlled Trial Target Systolic Blood Pressure*



**Intensive Treatment**  
**Goal SBP < 120 mmHg**  
**(n= 4,278)**

**Standard Treatment**  
**Goal SBP < 140 mmHg**  
**(n= 4,285)**



The SPRINT MIND Investigators for the SPRINT Research Group (2019). *JAMA*, 321(6):553–561.



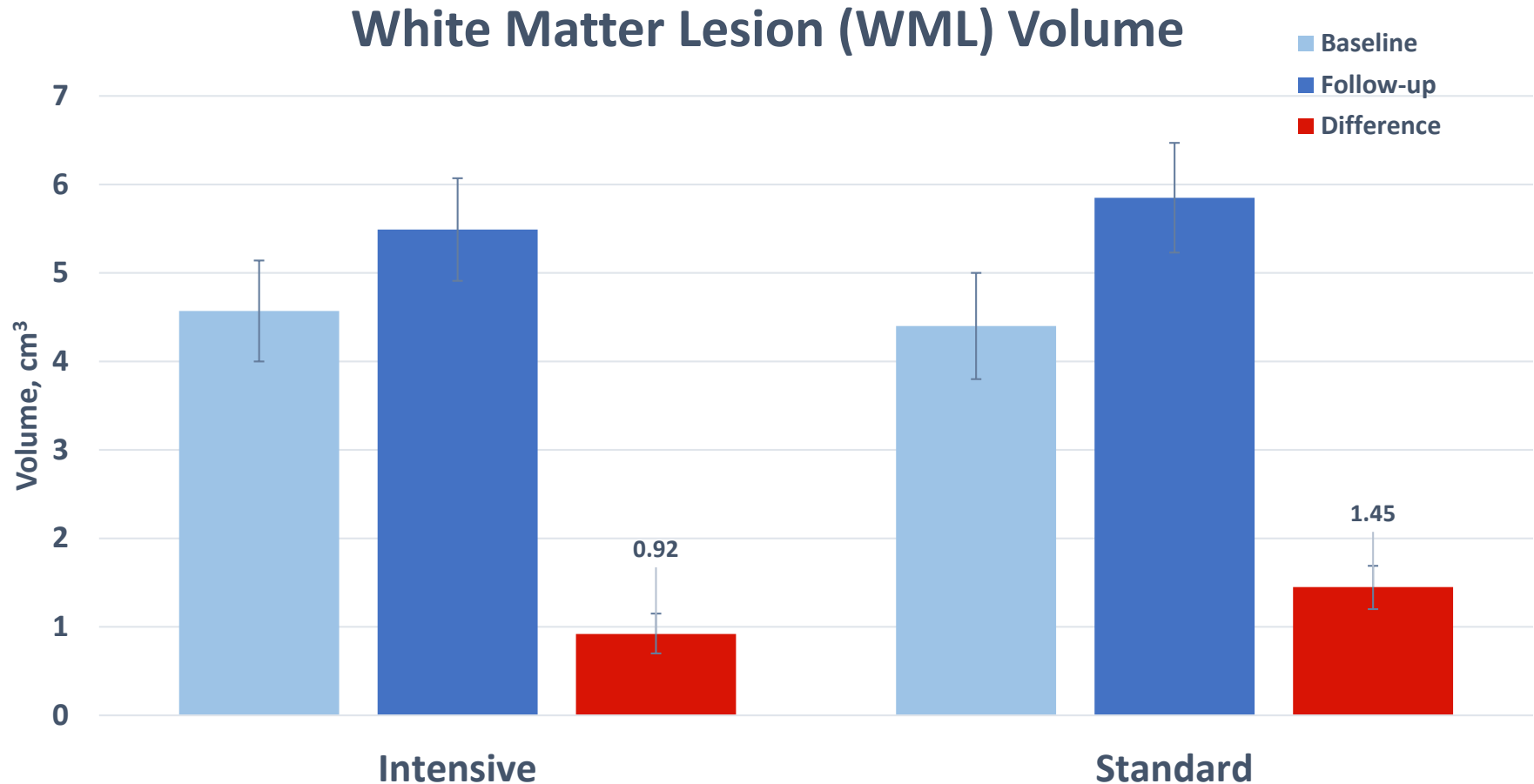
# SPRINT-MIND:

## Secondary Cognitive Outcome

- The Intensive Treatment Group experienced a statistically significant **reduction in the rate of developing MCI (19% reduction)** as compared to the Standard Treatment Group
- The Intensive Treatment Group experienced a statistically significant **reduction in the rate of composite MCI and probable dementia (15% reduction)** as compared to the Standard Treatment Group

The SPRINT MIND Investigators for the SPRINT Research Group (2019). *JAMA*, 321(6):553–561.

# SPRINT-MIND: Structural MRI Outcomes



Adapted from The SPRINT MIND Investigators for the SPRINT Research Group (2019). *JAMA*, 322(6), 524-534.

# Daily Low-Dose Aspirin Found to Have No Effect on Healthy Life Span in Older Adults

## ASpirin in Reducing Events in the Elderly (ASPREE) - Results

- **Cardiovascular:** No substantial reduction in risk of MI and stroke
- **Mortality:** Slightly higher – but not significant
- **Bleeding:** Significantly increased risk of serious bleeding
- **Physical disability:** No effect
- **Dementia:** No effect

McNeil, J.J. et al. (2018). *NEJM* 379:1499-1508.

McNeil, J.J. et al. (2018). *NEJM* 379: 1509-1518.

McNeil, J.J. et al. (2018). *NEJM* 379: 1519-1528.

# Change in ACC/AHA Clinical Practice Guidelines re: Aspirin for CVD Prevention



AMERICAN  
COLLEGE of  
CARDIOLOGY



American  
Heart  
Association®

*Learn and Live*

## Circulation

### ACC/AHA CLINICAL PRACTICE GUIDELINE

## 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease: Executive Summary

A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines

#### WRITING COMMITTEE MEMBERS

Donna K. Arnett, PhD, MSPH, FAHA, Co-Chair  
Roger S. Blumenthal, MD, FACC, FAHA, Co-Chair  
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Kim A. Williams Sr, MD, MACC, FAHA\*  
Joseph Yeboah, MD, MS, FACC, FAHA\*  
Boback Ziaieian, MD, PhD, FACC, FAHA§

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation, the American Geriatrics Society, the American Society of Preventive Cardiology, and the Preventive Cardiovascular Nurses Association

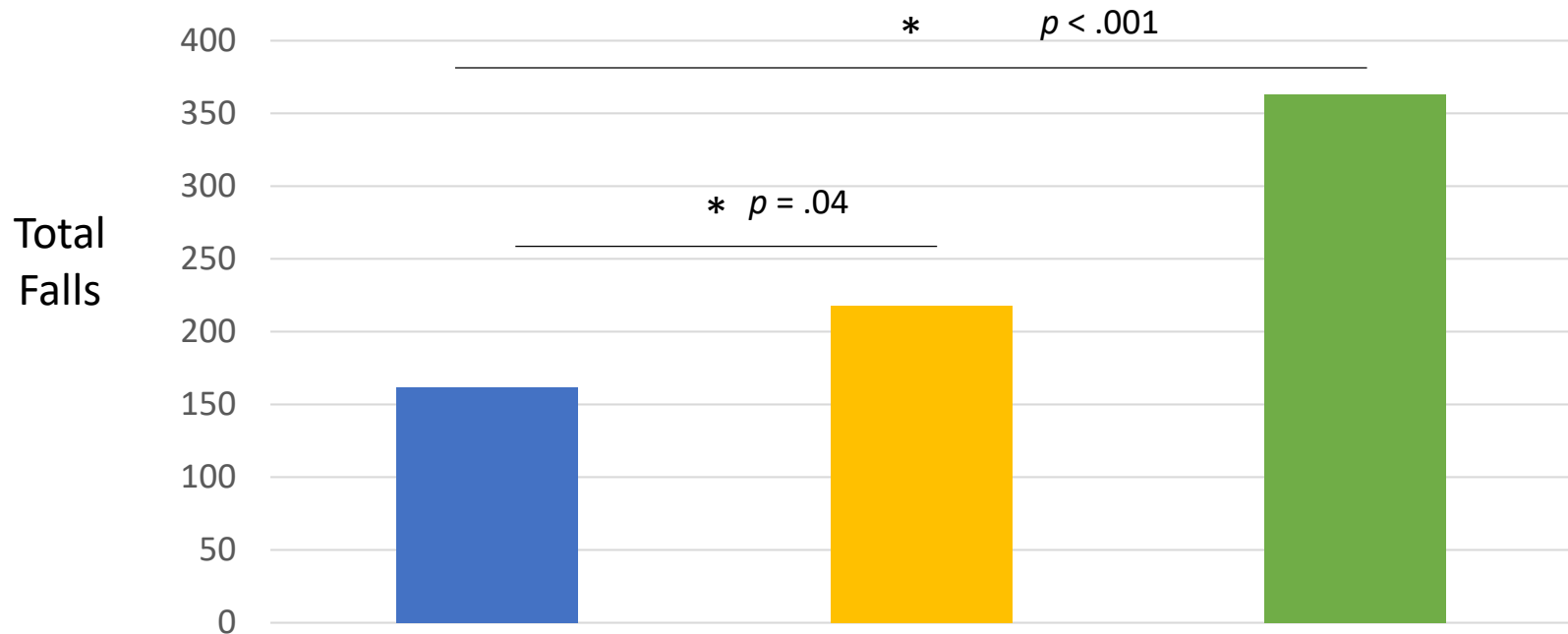
ACC/AHA Task Force Members, see page e577

#### Key Words:

AHA Scientific Statements  
■ guidelines ■ antihypertensive agents ■ aspirin ■ atherosclerosis ■ atherosclerotic cardiovascular disease ■ atrial fibrillation ■ behavior modification ■ behavior therapy ■ blood cholesterol ■ blood pressure ■ body mass index ■ cardiovascular team-based care ■ cardiovascular ■ cardiovascular disease ■ cholesterol ■ chronic kidney disease ■ coronary artery calcium score ■ coronary disease ■ coronary heart disease ■ cost ■ diet ■ dietary patterns ■ dietary fats ■ dietary sodium ■ dyslipidemia ■ e-cigarettes ■ exercise ■ healthcare disparities ■ health services accessibility ■ heart failure ■ hypertension ■ LDL cholesterol ■ diabetes mellitus ■ lifestyle ■ lipids ■ measurement ■ myocardial infarction ■ nicotine ■ pharmacological

# Tai Chi Intervention Reduces Incidence of Falls when Compared to MME and Stretching for Sedentary Individuals with History of Falls

Incidence of Falls During 24-Week Intervention

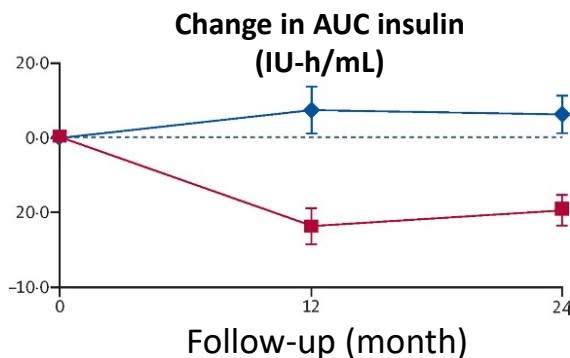
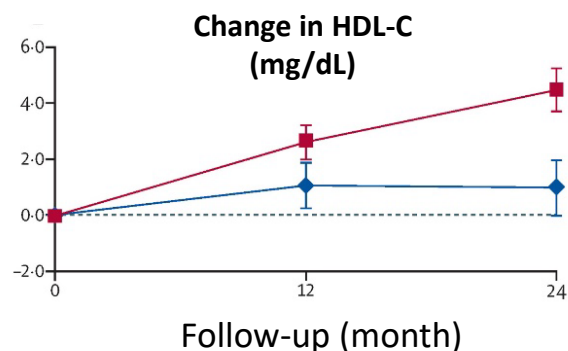
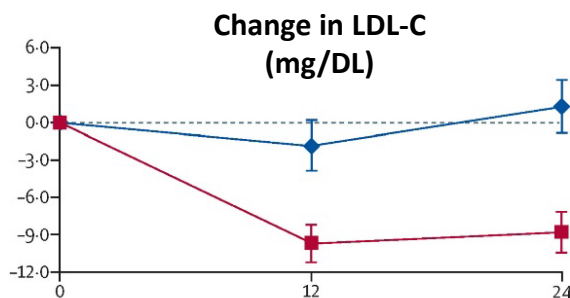
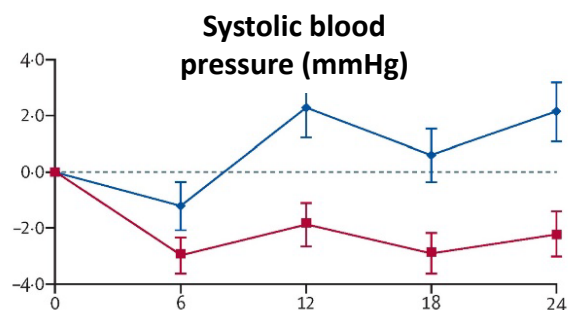
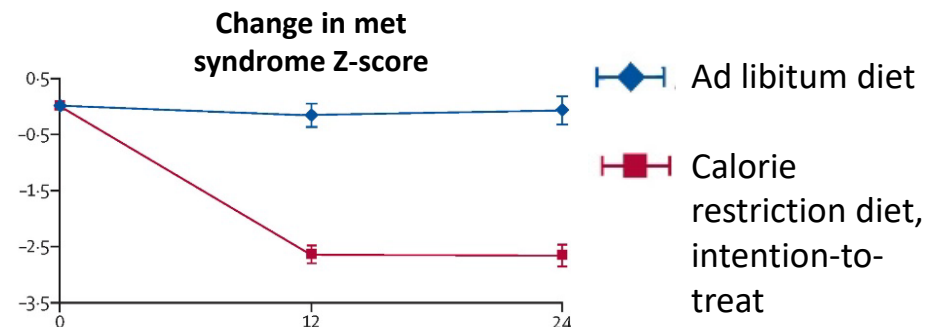
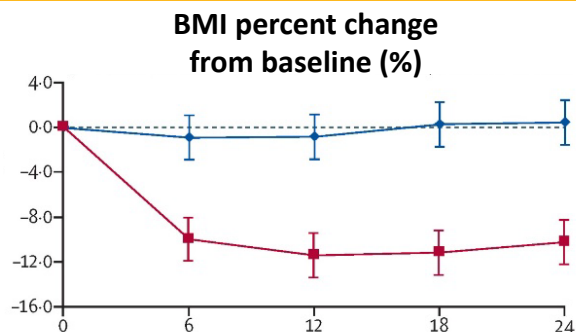


Total Falls  
(mean) [SD]

Tai Ji Quan (TJQ) Intervention	Multimodal Exercise	Stretching Exercise
162 (0.68) [1.3]	218 (0.98) [1.8]	363 (1.63) [3.9]

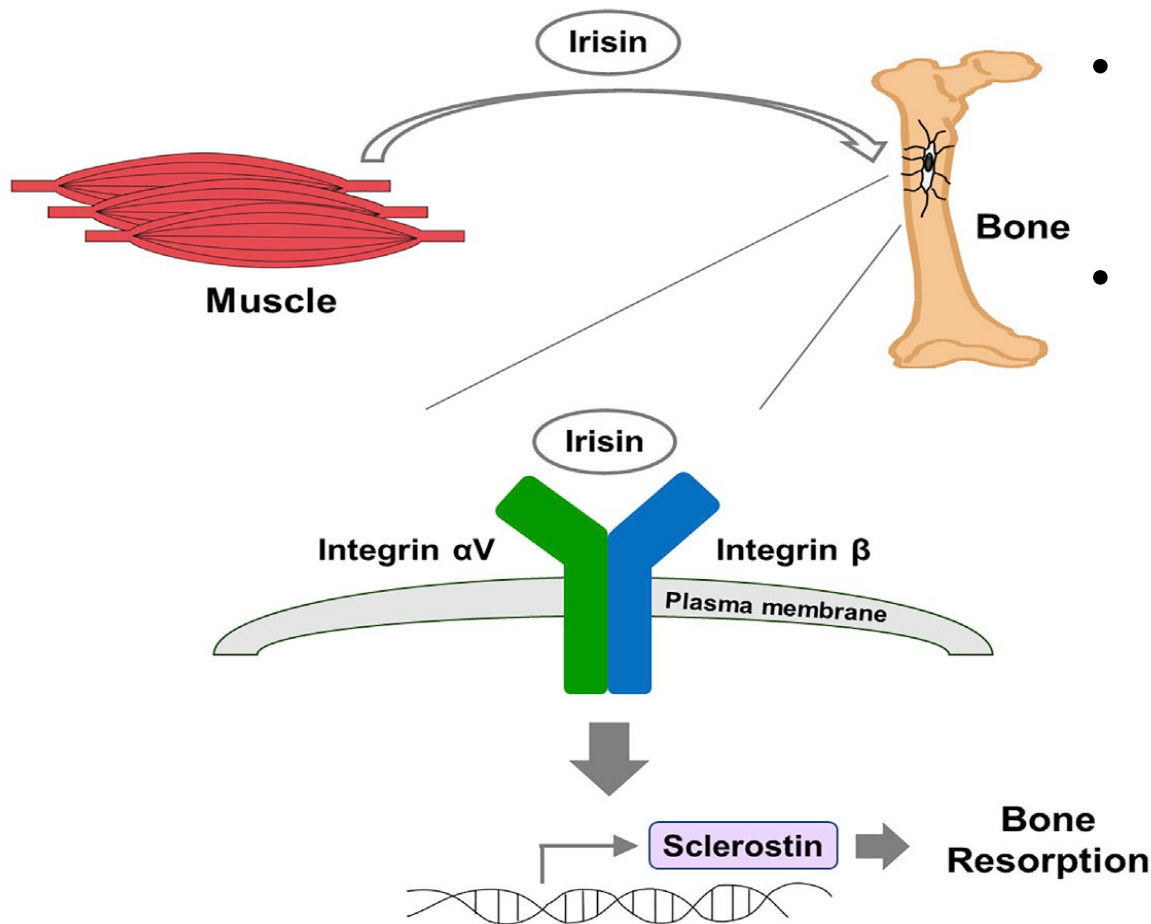
Li, F et al. (2018). *JAMA Intern Med*, 178 (10), 1301-10.

# Modest Calorie Reduction Can Improve Cardiometabolic Health



Kraus W.E. et al., (2019). *The Lancet Diabetes & Endocrinology* 7(9), 673-683.

# Irisin Promotes Skeletal Remodeling with Implications for Stemming Bone Loss



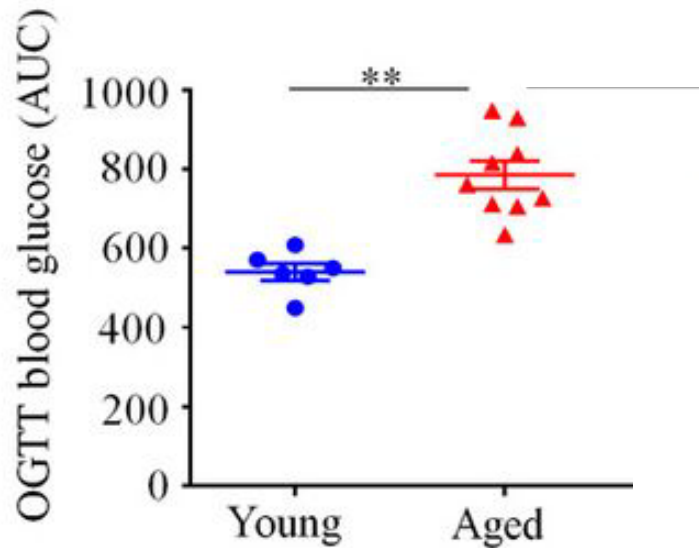
- Irisin secretion by muscle is rapidly stimulated by exercise
- Irisin supports bone remodeling by:
  - Protecting against apoptosis of osteocytes
  - Promoting transcription of sclerostin, an inhibitor of osteoblast differentiation

Kim et al., 2018. *Cell* 175(7):1756-68.

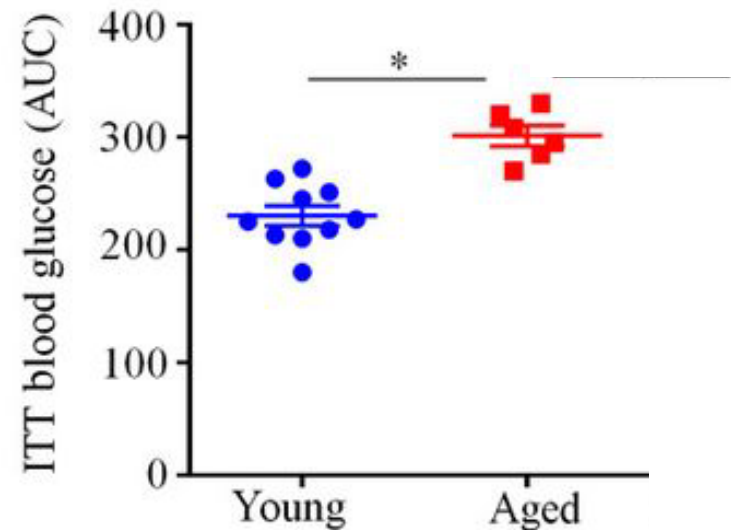
# Gut Microbiome Contributes to Insulin Resistance (IR) in Aging

IR is attenuated in aged mice following treatment with antibiotics or butyrate

Glucose Tolerance Test



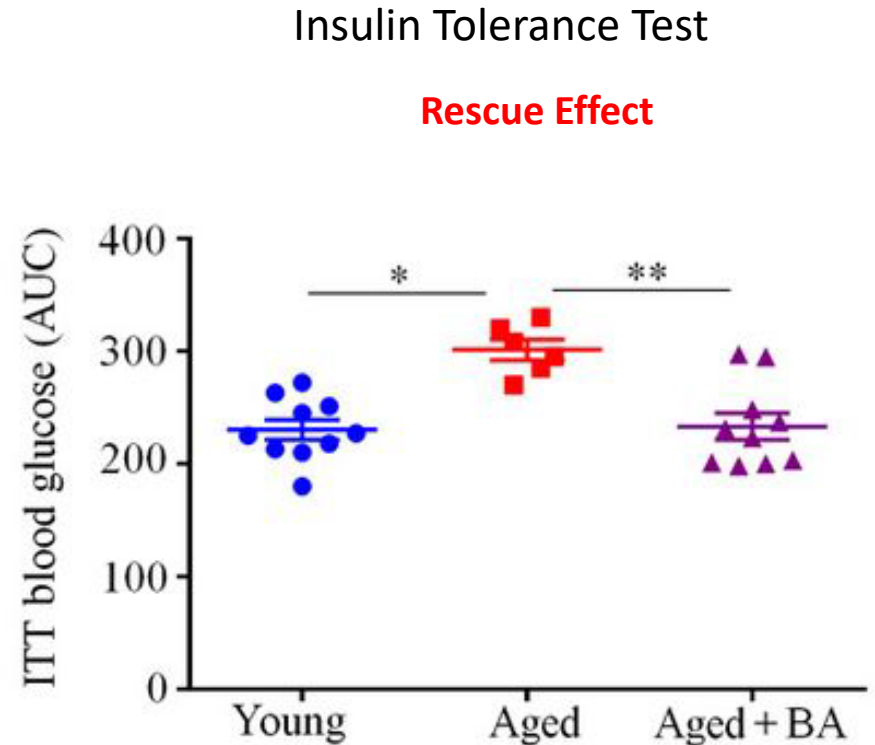
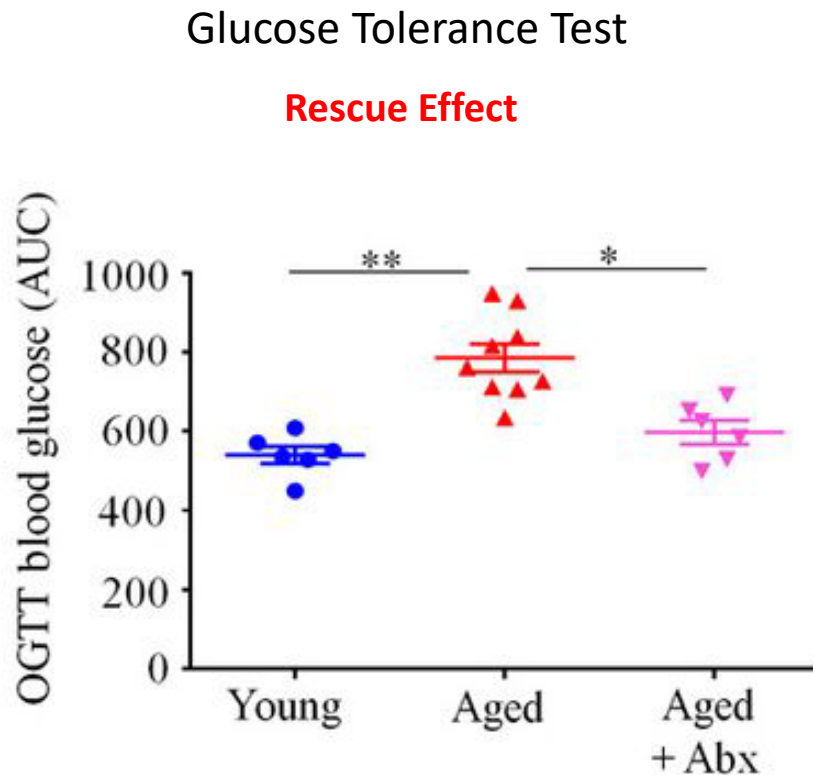
Insulin Tolerance Test



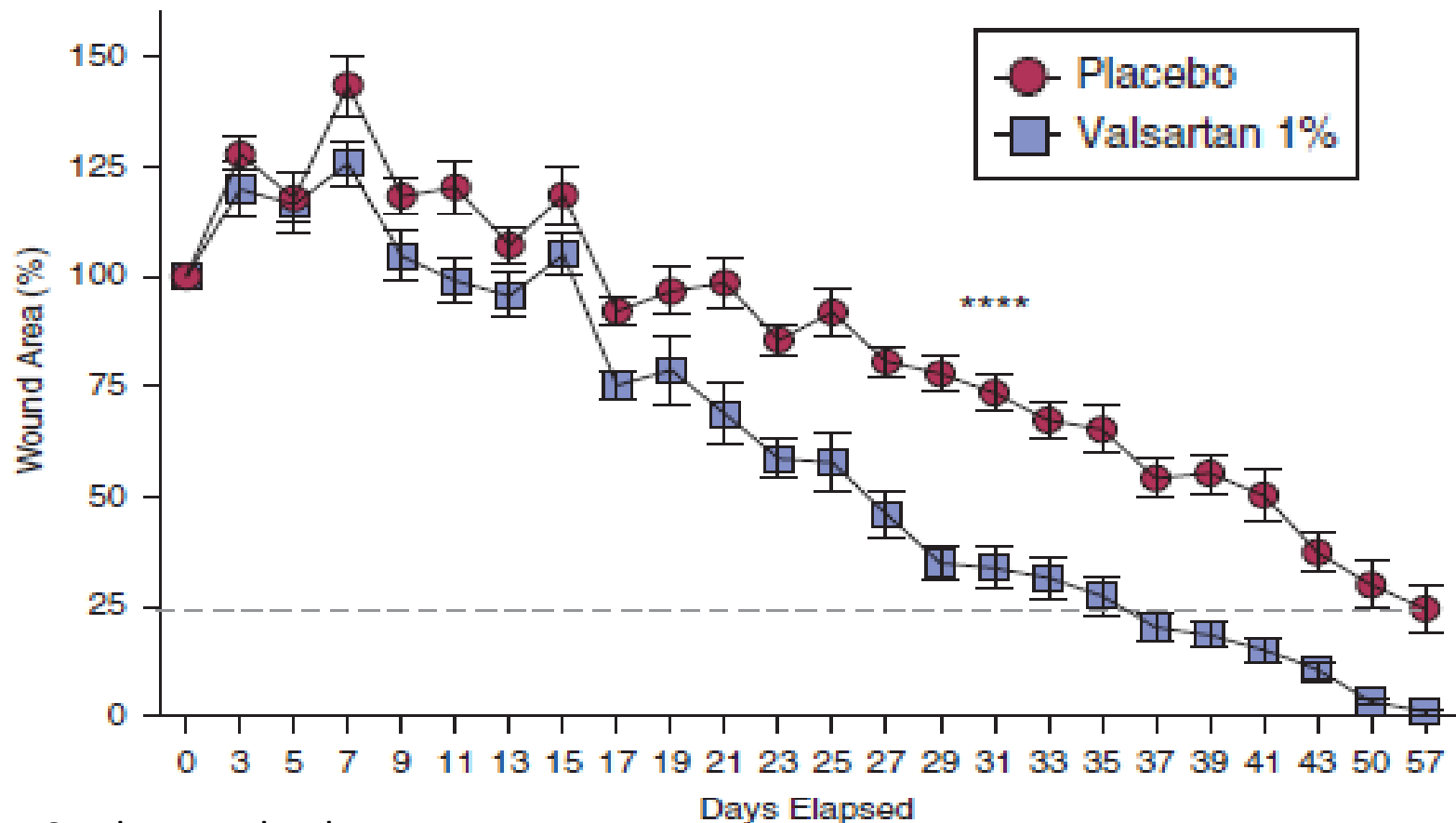


# Gut Microbiome Contributes to Insulin Resistance (IR) in Aging

IR is attenuated in aged mice following treatment with antibiotics or butyrate



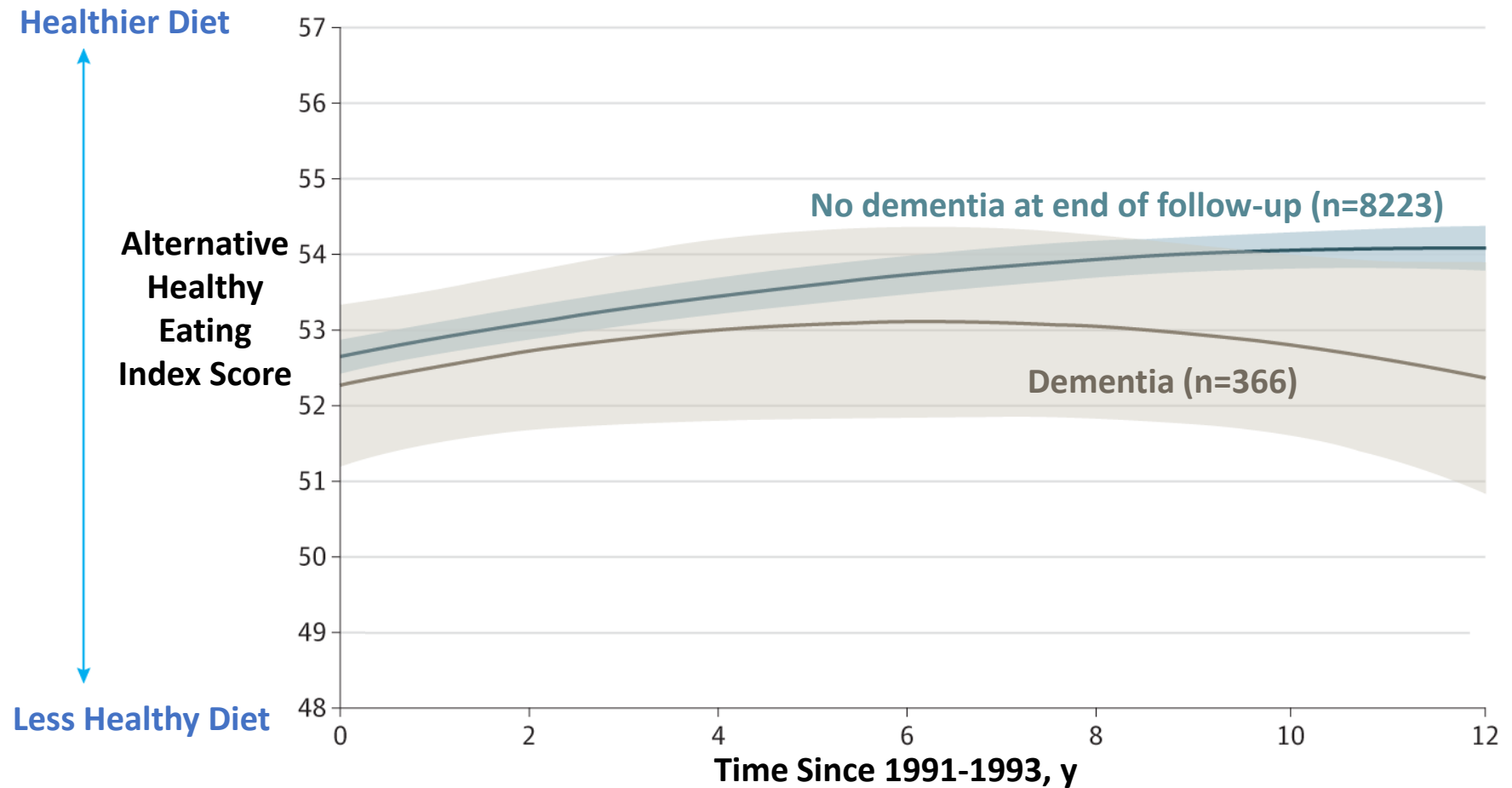
# Hypertension Drug “Valsartan” Reformulated as Topical Treatment for Chronic Diabetic Wounds



**Note:** Study tested Valsartan on wounds in diabetic pigs.

Abadir, P., et al. (2018). *Journal of Investigative Dermatology*, 138 (2), 434-443.

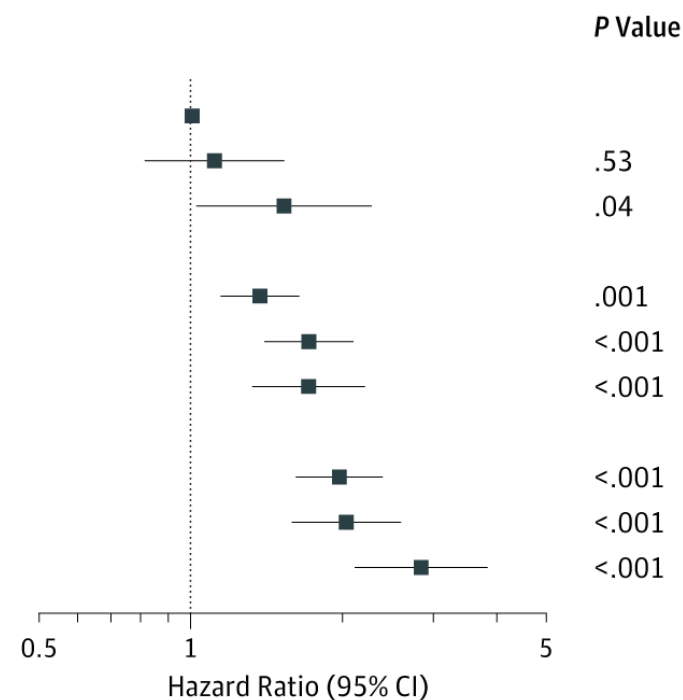
# No association found between diet quality in midlife and later life incident dementia



Akbaraly et al. (2019). *JAMA*, 321, 957-968.

# Healthy Lifestyle Associated with Lower Risk of Dementia Independent of Genetic Risk

Subgroup	Total No. of Participants	No. of Cases of Dementia/ Person-Years	Hazard Ratio (95% CI)
Low genetic risk			
Favorable lifestyle	26 856	151/211 986	1 [Reference]
Intermediate lifestyle	9114	57/72 342	1.11 (0.81-1.52)
Unfavorable lifestyle	3165	29/24 460	1.52 (1.02-2.26)
Intermediate genetic risk			
Favorable lifestyle	80 290	635/633 405	1.36 (1.14-1.63)
Intermediate lifestyle	27 703	280/219 777	1.70 (1.39-2.08)
Unfavorable lifestyle	9603	99/74 005	1.70 (1.31-2.19)
High genetic risk			
Favorable lifestyle	26 407	298/208 769	1.95 (1.60-2.38)
Intermediate lifestyle	9380	111/74 652	2.02 (1.57-2.58)
Unfavorable lifestyle	3373	60/26 039	2.83 (2.09-3.83)

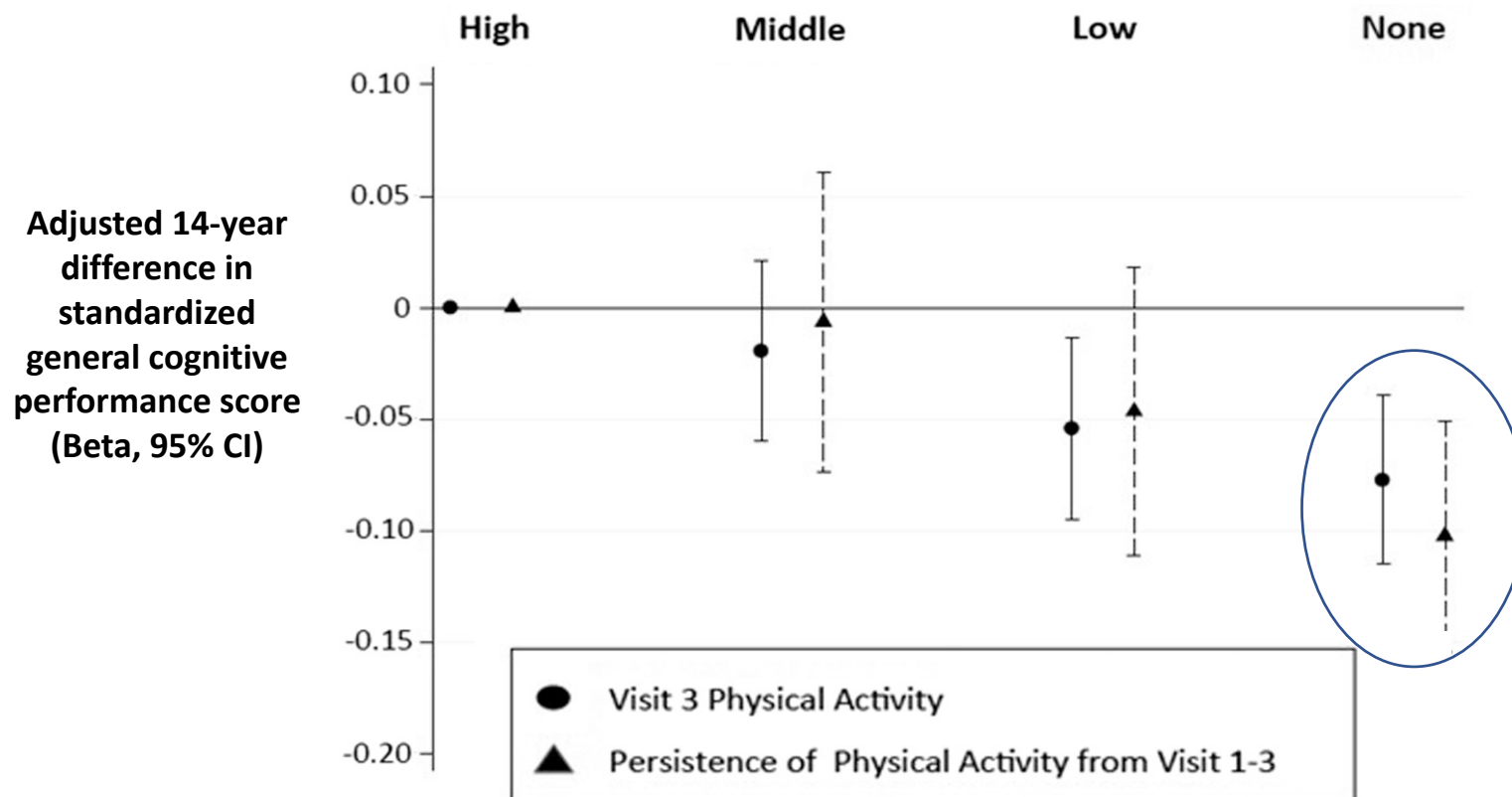


Lifestyle scores were constructed based on 4 factors- smoking status, physical activity, diet, and alcohol consumption

Lourida, I et al. (2019). *JAMA*, 322, 430-437.

# Individuals with No Leisure-Time Physical Activity Show More Rapid Cognitive Decline

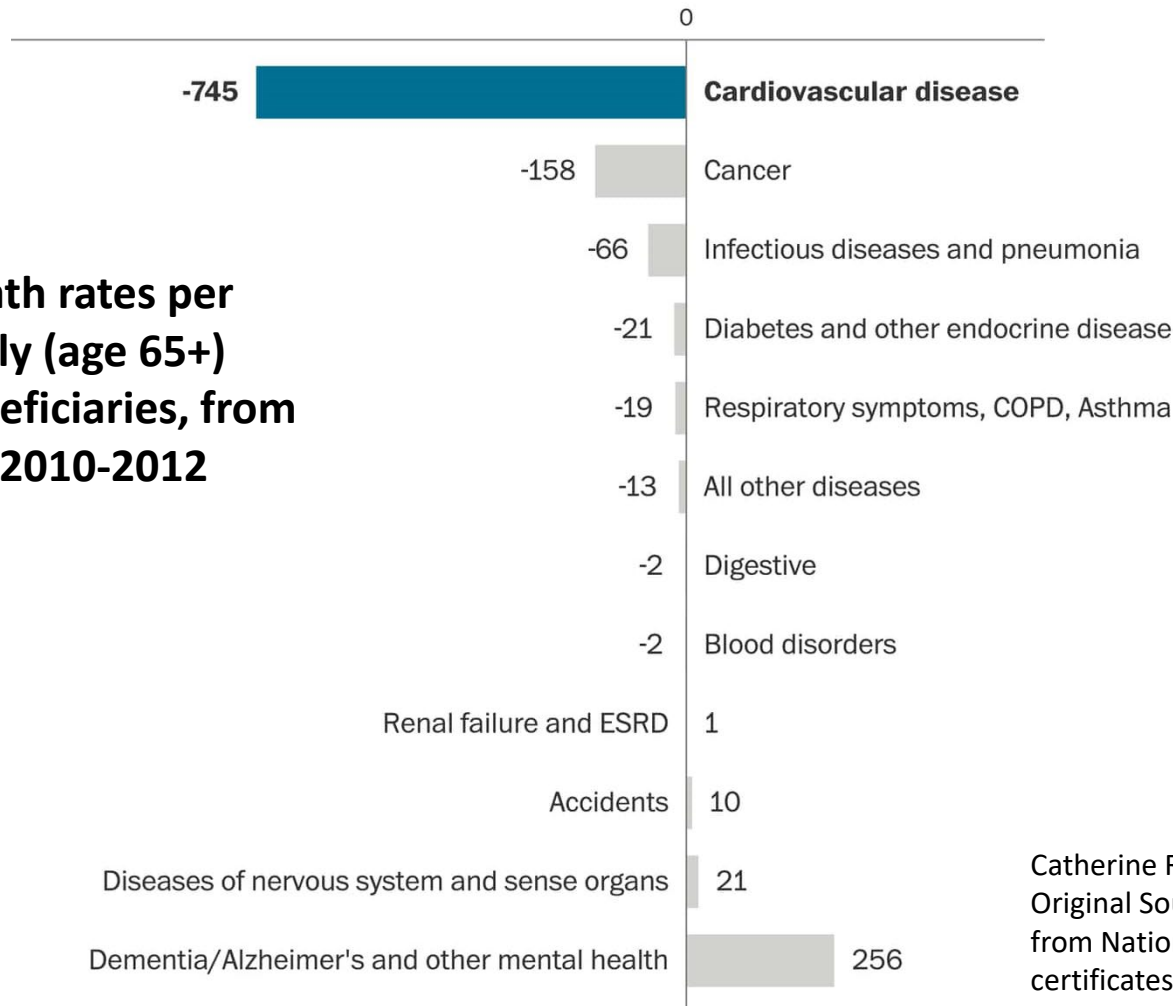
## Leisure-Time Physical Activity Level



Palta et al. (2019). *Alzheimer's & Dementia*, 15(2), 273-281.

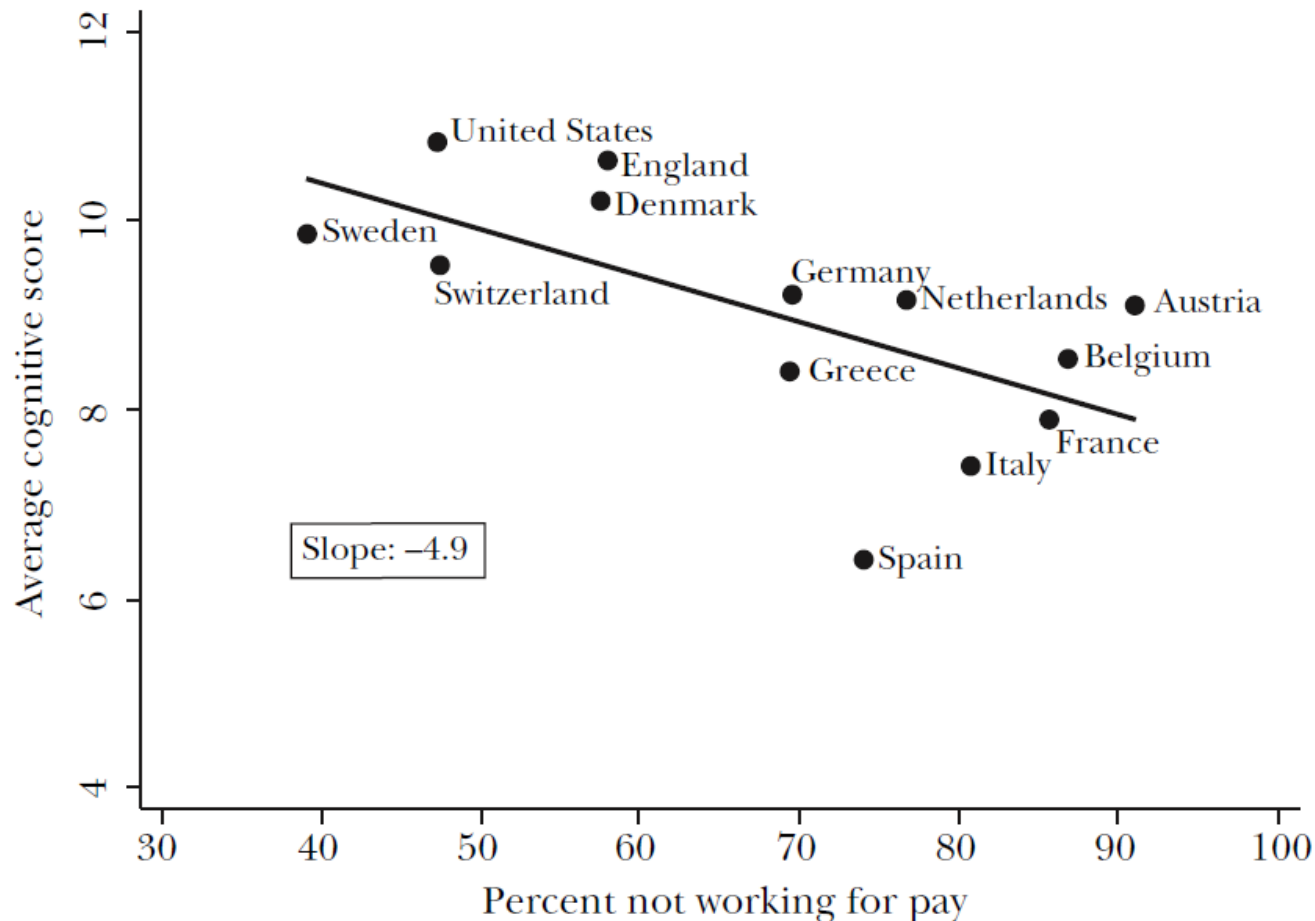
# Declining Death Rates Among Older Adults Linked to CVD Improvements

**Change in death rates per  
100,000 elderly (age 65+)  
Medicare beneficiaries, from  
1999-2001 to 2010-2012**



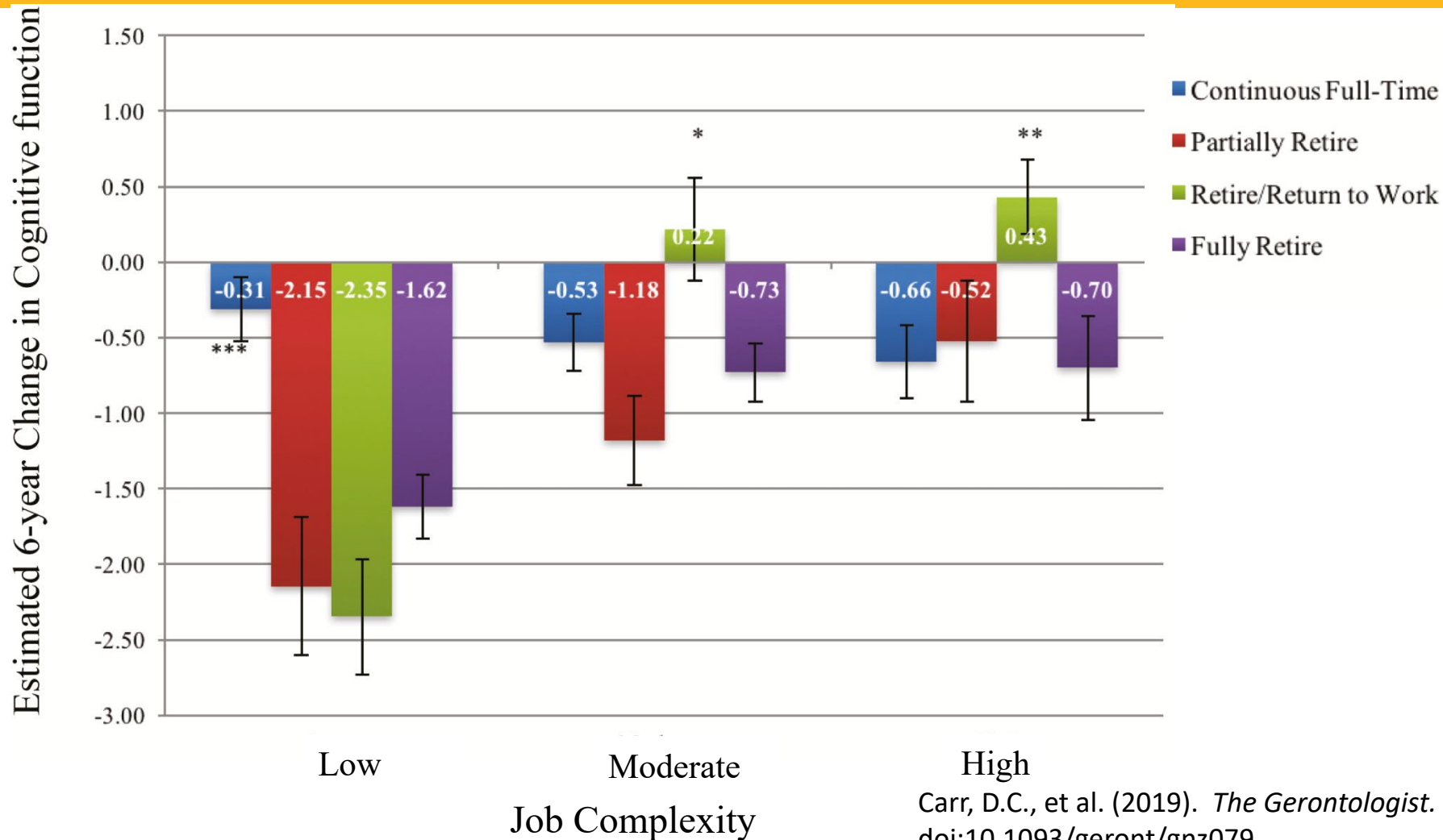
Catherine Rampell/ The Washington Post  
Original Source: David M. Cutler, calculated  
from National Death Index death  
certificates data from the CDC.

# Cognitive Performance as a Function of Employment Rate (2010)



Rohwedder, S. & Willis, R.J. (2010). *Journal of Economic Perspectives*, 24 (1), 119-138.

# “Mental Retirement” Depends on Job Complexity & Retirement Pathway

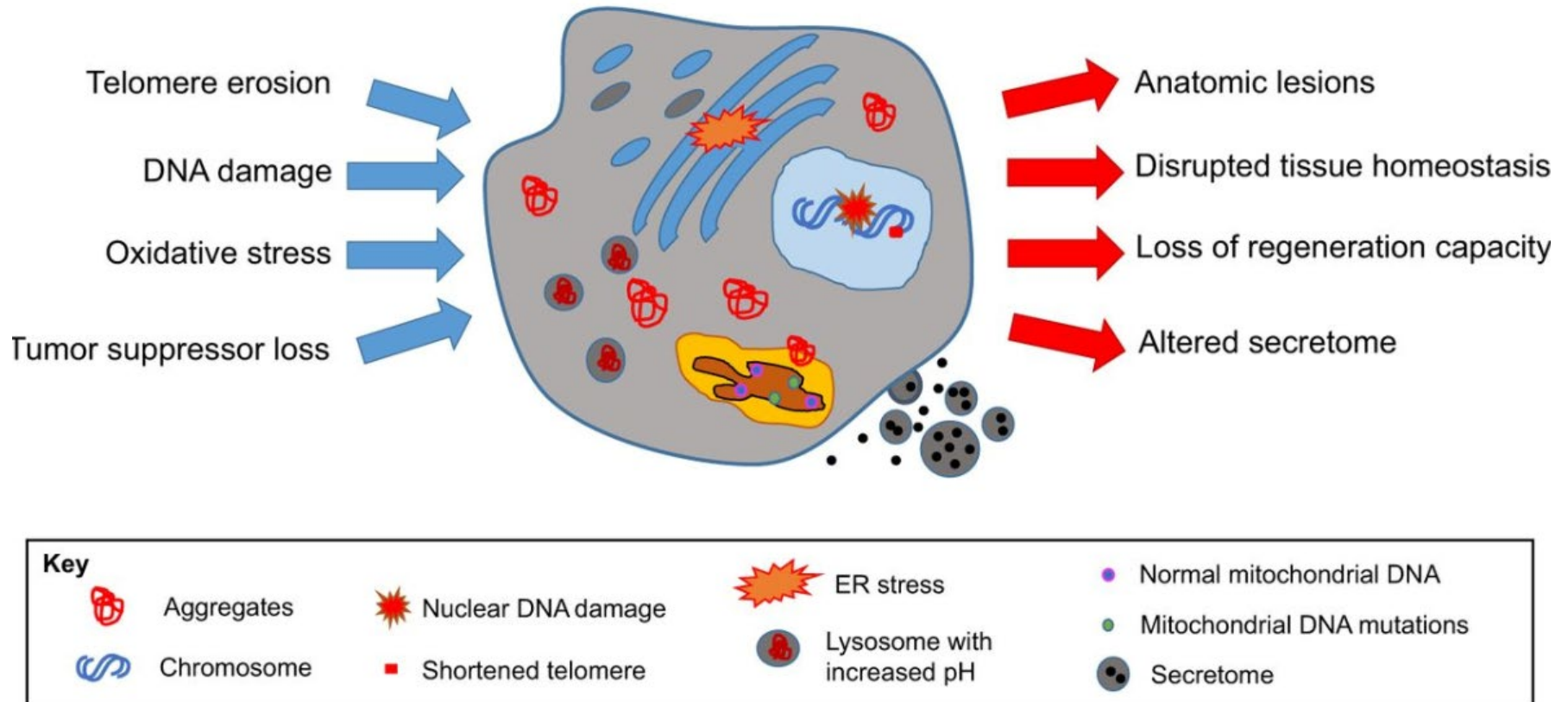




# Studies Targeting Senescent Cells



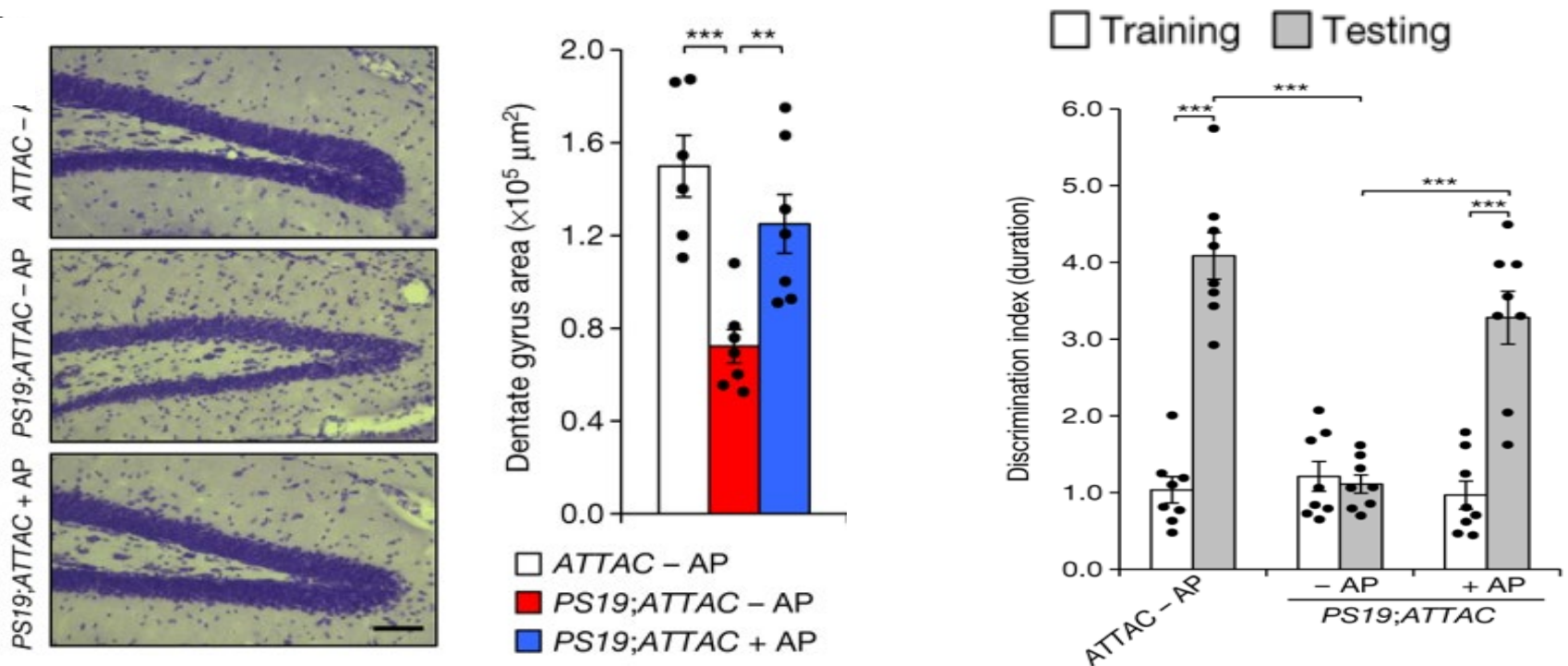
# What is cell senescence?



**Senescent cells secrete a large number of biologically active factors which affect the function of neighboring, non-senescent cells**

Ruan, L. et al. (2018). *J Cell Sci* 131.

# Clearance of senescent glial cells prevents tau-dependent pathology and cognitive decline



- Senescent cells drive neurodegenerative disease
- Clearance of senescent cells through genetic manipulation or drug treatment decreases tau pathology and cognitive decline

Bussian, T. et al. (2018). *Nature*, 562(7728): 578-582.

# Senolytics are Being Tested in the Clinic Against a Handful of Diseases

- Small Phase 1 studies on repurposed compounds (dasatinib + quercetin; navitoclax)
- *Conditions:*
  - Idiopathic pulmonary fibrosis (IPF) n=26 [NCT02874989](https://clinicaltrials.gov/ct2/show/study/NCT02874989) (completed)
  - Alzheimer's disease n=5 [NCT04063124](https://clinicaltrials.gov/ct2/show/study/NCT04063124)
  - Diabetic chronic kidney disease n=16 [NCT02848131](https://clinicaltrials.gov/ct2/show/study/NCT02848131)
  - Osteoarthritis n=78 [NCT03513016](https://clinicaltrials.gov/ct2/show/study/NCT03513016) (completed)
- Feasibility and tolerability results published for IPF Phase 1 study (Justice et al. (2019). *EbioMedicine*; 40:554-563)



# Resources and Infrastructure





# RESEARCH CENTERS COLLABORATIVE NETWORK

of the National Institute on Aging, NIH

<https://www.rccn-aging.org/>

## ***Catalyzing cross-disciplinary research across the NIA Center Programs***

- Alzheimer's Disease Research Centers
- Centers on the Demography and Economics of Aging
- Claude D. Pepper Older Americans Independence Centers (OAICs)
- Nathan Shock Centers of Excellence in the Basic Biology of Aging
- Resource Centers for Minority Aging Research (RCMAR)
- Roybal Centers for Translational Research on Aging

# Translational Geroscience Network

**Goal:** Accelerate the development of interventions designed to treat chronic conditions (e.g., diabetes, heart disease, Alzheimer's disease) as a group by targeting biological aging.



Support “use case” trials using repurposed drugs to harmonize recruitment and analytic procedures.



Expand an assay facility to analyze biospecimens across the network.



Support a data entry platform to facilitate cross-study comparisons.



Develop a biobanking and repository network for samples from clinical trials to permit future analyses.





<https://agingresearchbiobank.nia.nih.gov>

A Web-Based Platform For Sharing Biospecimens and Data With Investigators in the Research Community

REQUESTS

SUBMIT NEW COLLECTION

STUDIES

RESOURCES

## Search for Datasets and/or Biospecimens

Search

### LIFE - Lifestyle Interventions and Independence for Elders

FEATURED COLLECTION

The primary aim is to assess the long-term effects of structured physical activity on the primary outcome of major mobility disability, defined as inability to walk 400 m.

[Learn more about the LIFE Study >>](#)

### SWAN - Study of Women's Health Across the Nation

SWAN is providing many interesting findings about the health and aging of mid-life women from diverse communities and racial and ethnic backgrounds.

[Learn more about the SWAN Study >>](#)

### Other NIA Studies

Longitudinal and clinical studies on aging supported by the [National Institute on Aging](#) have generated collections of biospecimens and related phenotypic and clinical data to allow better understanding of the aging process and to promote advances in the development of prognostics, markers, and therapeutics for aging-related conditions.



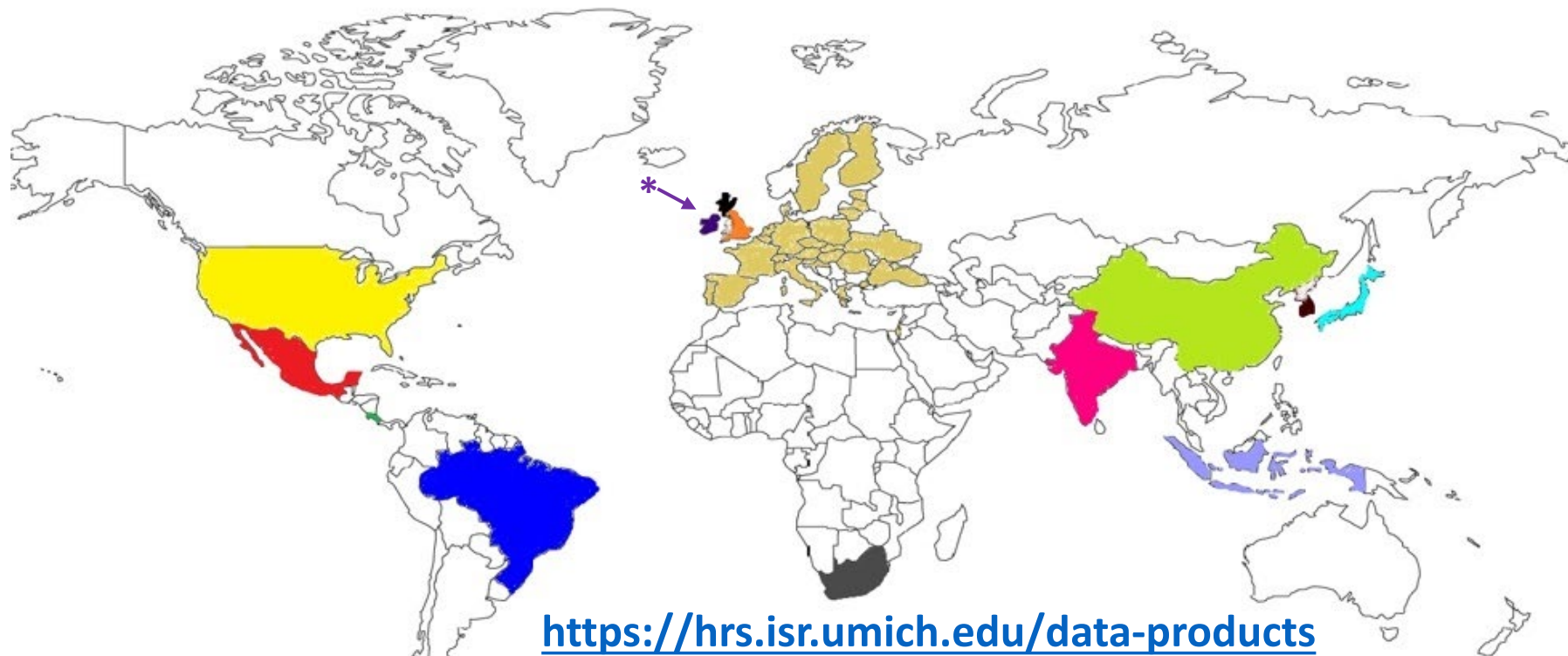
# AgingResearchBiobank

## Main Purpose:

- Provide a state-of-the-art inventory system for the storage and distribution of biospecimens and data collections from NIA-funded studies to broader scientific community.
- Accelerate science to help extend the healthy, active years of life for the world's fast-growing population of older adults.



# HRS Family Studies Around the World



<https://hrs.isr.umich.edu/data-products>

- Health & Retirement Study (U.S.)
- The Brazilian Longitudinal Study of Aging
- English Longitudinal Study of Ageing
- Survey of Health, Aging, and Retirement in Europe
- Longitudinal Aging Study in India
- Korean Longitudinal Study on Ageing
- Japanese Study of Aging and Retirement
- Mexican Health and Aging Study
- Costa Rican Longevity and Healthy Aging Study
- Health and Aging in Africa: Longitudinal Studies of INDEPTH Communities (Agincourt, S. Africa)
- The China Health Aging and Retirement Longitudinal Study
- Indonesia Family Life Survey
- The Scottish Longitudinal Study of Ageing
- The Irish Longitudinal Study on Ageing
- \* The Northern Ireland Longitudinal Study of Ageing

# The Healthy Cognitive Aging Project (HCAP) Dementia Assessment in HRS-Family Studies

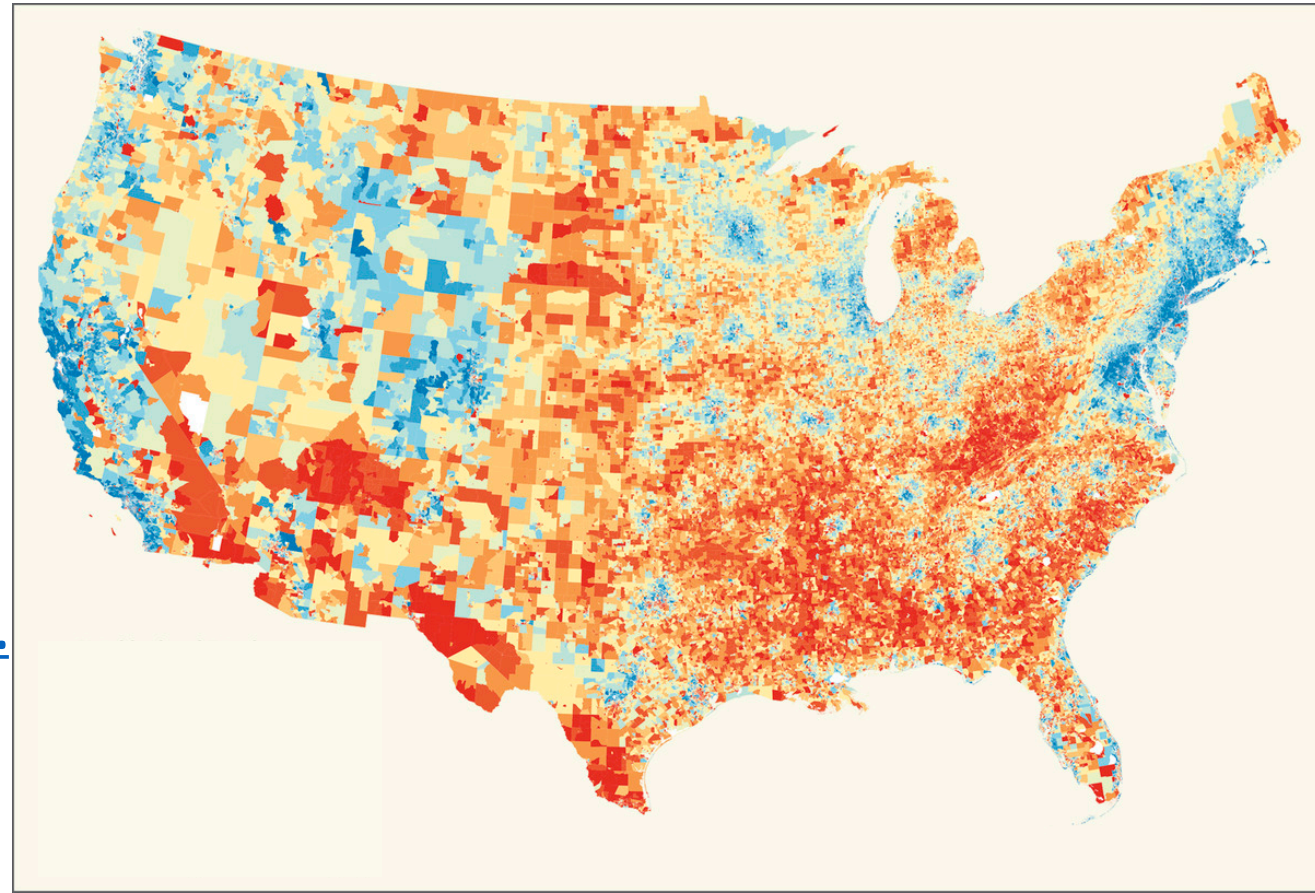
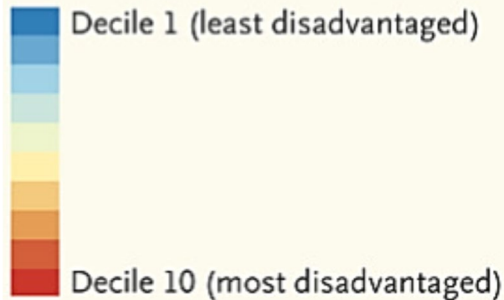
- The now-global consortium of studies (HRS-sister studies) collecting rich cognitive data using the Harmonized Cognitive Assessment Protocol

<https://hrs.isr.umich.edu/data-products/cognition-data>



# Assessing Neighborhood Disadvantage on a National Scale

Neighborhood Disadvantage  
by 2013 ADI



[www.neighborhoodatlas.  
medicine.wisc.edu](http://www.neighborhoodatlas.medicine.wisc.edu)

Kind, A.J.H., & Buckingham, W.R. (2018). *NEJM* 378(26):2456-8.

# New research collaboratory designed to spur innovation and improve dementia care



## **NIA IMPACT will:**

- Develop and disseminate technical, policy, and best practices
- Enhance research development and investigator capacity:
  - Fund/guide pilot ePCTs, support transformation into full-scale ePCTs.
  - Resource for NIA-funded investigators conducting ePCTs in PLWD.
  - Support training through career award, workshops, and on-line modules.
- Engage stakeholders

# IMPACT Collaboratory





## Alzheimer's and Dementia Outreach, Recruitment, and Engagement Resources

[www.nia.nih.gov/research/ADORE](http://www.nia.nih.gov/research/ADORE)

**A searchable collection of materials for clinical trials recruitment and retention:**

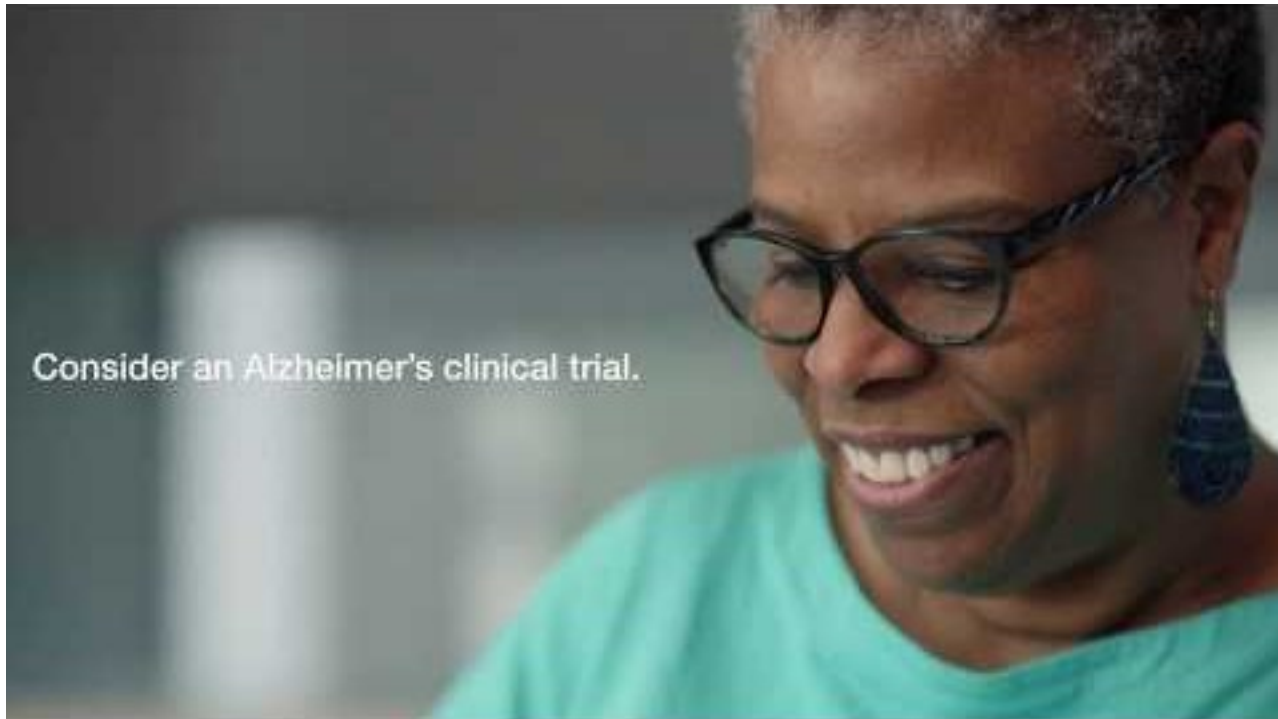
- **Find** flyers, toolkits, recruitment plans, and more from Alzheimer's Disease Research Centers, NIH, and others.
- **Browse** by goals, participant characteristics, and dozens of focused topics.
- **Get** tips for strategy from the Alzheimer's Disease and Related Dementias Clinical Studies Recruitment Planning Guide.
- **View, download, and share** participant testimonial **videos**.





# Recruitment Video

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# Alzheimer Centers for the Discovery of New Medicines

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- Two new research centers with funding expected to total more than \$73 million
- Designed to diversify and reinvigorate the Alzheimer's disease drug development pipeline
- Will provide added infrastructure for developing high-quality research tools and technologies needed to validate and advance the next generation of drug targets

<https://www.nia.nih.gov/news/nih-funded-translational-research-centers-speed-diversify-alzheimers-drug-discovery>

# Save the Dates



# Save the Date #1

The third **Geroscience Summit** organized  
by the Trans-NIH GeroScience Interest Group:

## ***Targeting Chronic Diseases Through Geroscience***



The Summit will be held on **November 4 & 5, 2019**  
in the NIH Natcher Building, Bethesda, MD.

Registration is now open at [www.nia.nih.gov](http://www.nia.nih.gov)!

Questions? [Sierraf@nia.nih.gov](mailto:Sierraf@nia.nih.gov)

# Save the Date #2

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**Join NIA in celebrating its 45<sup>th</sup> anniversary!**

Friday, 11/15/19, 10:00a.m – 11:30 a.m.

The GSA meeting, Austin TX – Room TBD

- Hear from division directors, scientific director, and NIA director
- See the unveiling of the new Strategic Directions
- Enjoy light refreshments (*not at government expense*)

# Save the Date #3

**Dementia Care, Caregiving, & Services Summit**  
**March 24-25, 2020**  
**Natcher Conference Center**  
**Bethesda, MD**



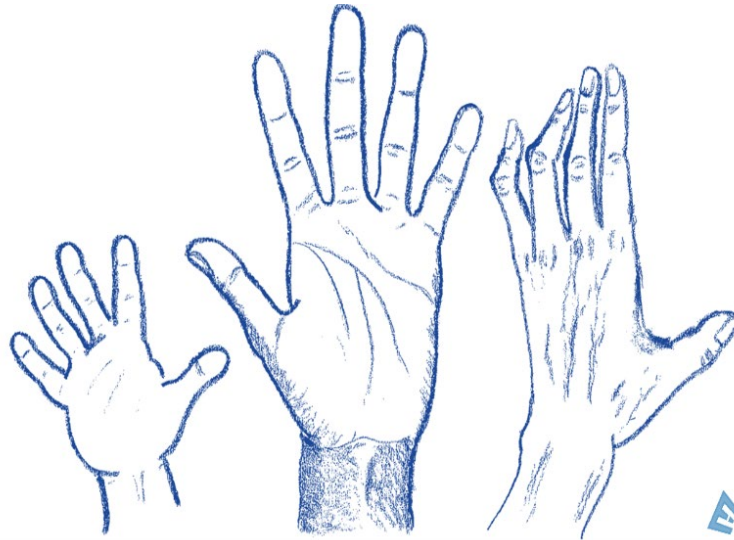
***CALL FOR POSTERS: Submit an abstract by **NOVEMBER 15<sup>th</sup>**.***  
***Registration will open soon!***

**<https://www.nia.nih.gov/2020-dementia-care-summit>**

# Save the Date #4

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## NIH's 2<sup>nd</sup> Inclusion Across the Lifespan Workshop



**September 2-3, 2020**

*A Request for Information (RFI) will be published soon!*

# Ways to Stay Informed and Connected



Search all active NIA funding opportunities:  
<https://www.nia.nih.gov/research/funding>



Review the latest approved concepts:  
<https://www.nia.nih.gov/approved-concepts>



Subscribe to our blog and stay up to date on the latest NIA news:  
<https://www.nia.nih.gov/research/blog>

