



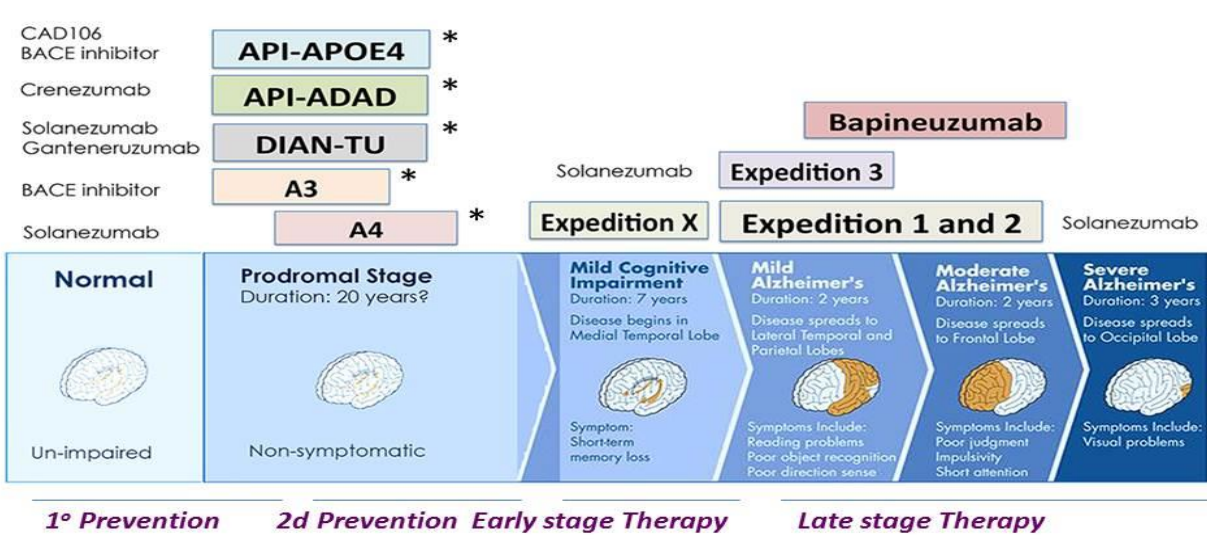
Alzheimer's Disease and Related Dementias Research Update

Advisory Council on Alzheimer's Research, Care, and Services Meeting

Richard J. Hodes, M.D.
 Director, NIA
 April 29, 2019

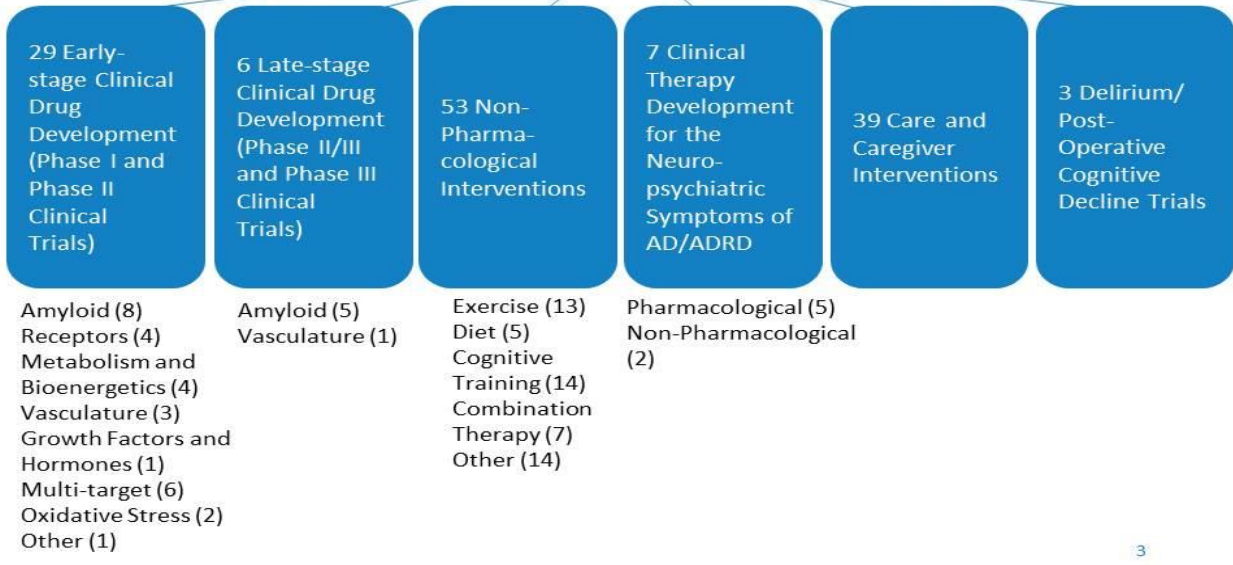


Alzheimer's Disease Immunotherapy Phase III Trials



* NIA sponsored (public-private partnerships)

Ongoing NIA AD/ADRD and Related Intervention and Prevention Trials (~140)



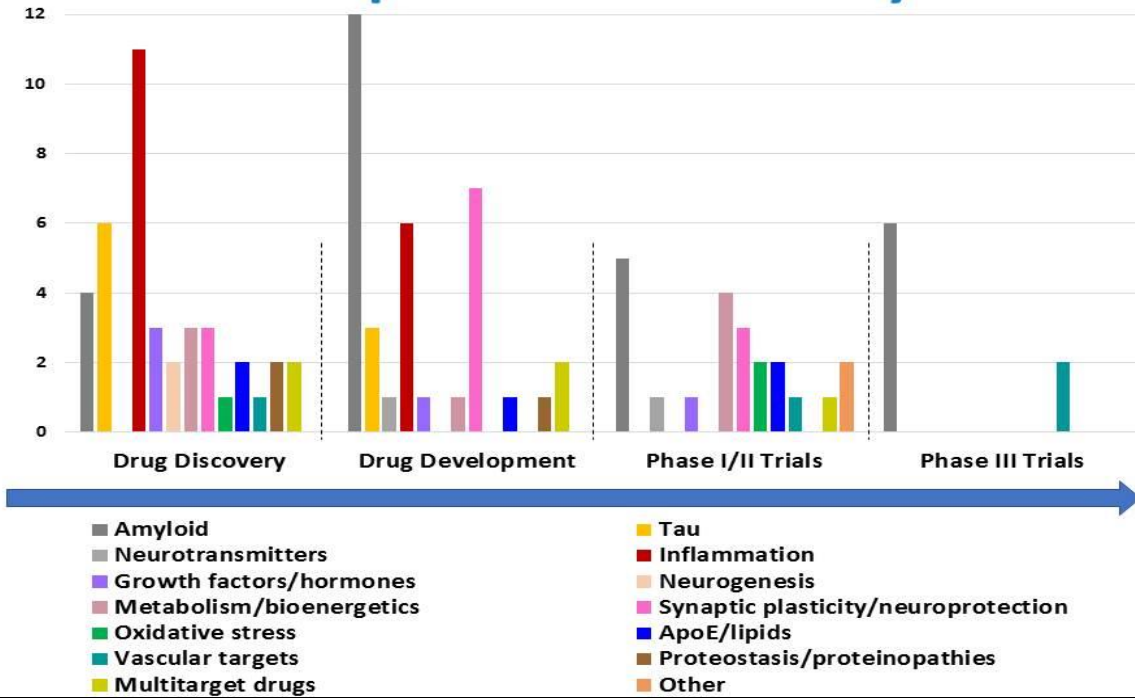
3

NIA-AD clinical trials pipeline toward 2025

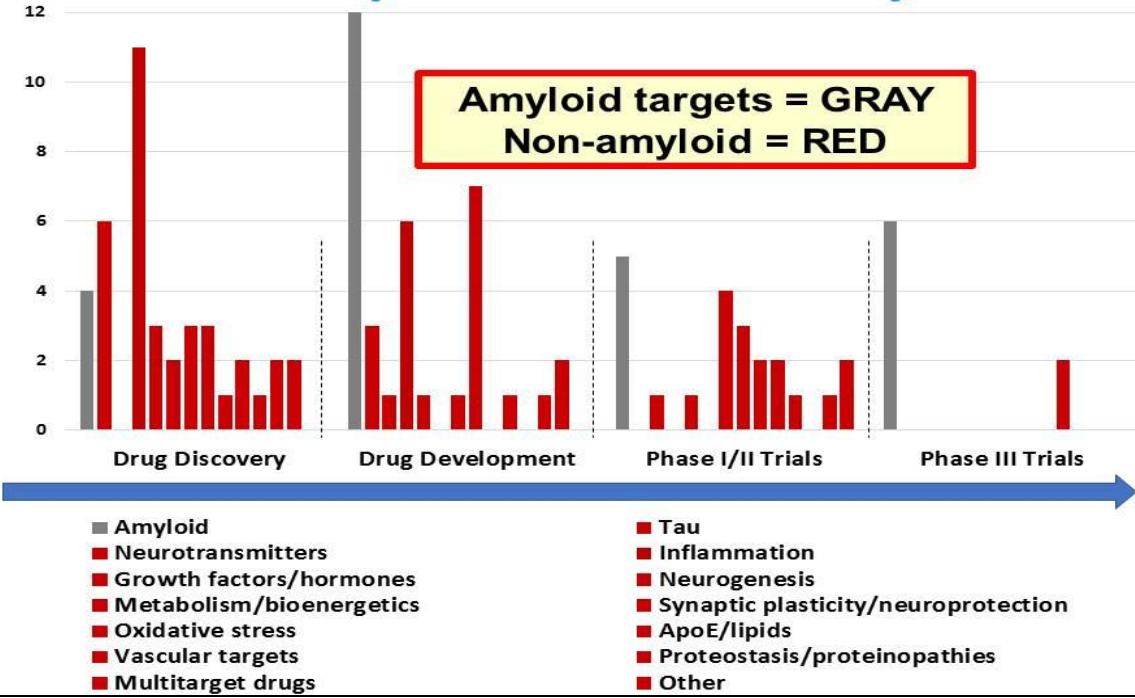


NIH National Institute on Aging

NIA Pipeline of Discovery



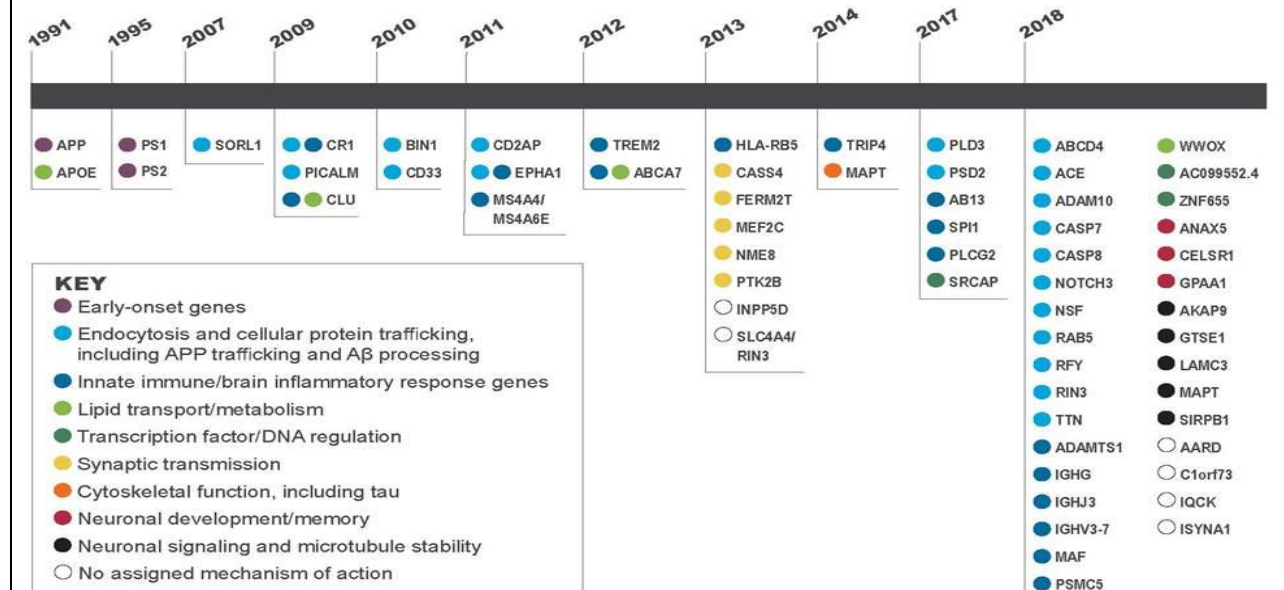
NIA Pipeline of Discovery



Genetic Regions of Interest in Alzheimer's Disease

By year of discovery

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



ACCELERATING MEDICINES PARTNERSHIP (AMP)

ALZHEIMER'S DISEASE

COMPLETED:

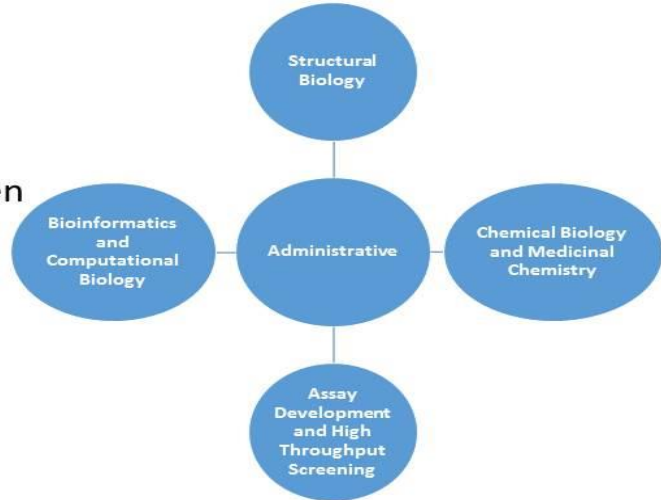
1. Centralized data resource established – AMP-AD Knowledge Portal
2. Rich genomic, proteomic, metabolomic human data (raw and processed) made available and being widely used – over 2000 users to date.
3. Network models of disease pathways/targets developed
4. Over 100 novel candidate targets identified and being prioritized in collaboration with industry partners; experimental validation ongoing on over 20 candidate targets/pathways.
5. Animal models phenotype/evaluated relative to human networks
6. Web-based interface for sharing target nominations and analytical outputs developed - AGORA platform; 100 annotated target predictions and additional 480 key driver genes made publicly available.

AD Centers for Discovery of New Medicines - [RFA AG 19-010](#)

-Applications submitted Feb 2, 2019-
-NIA plans to commit ~\$75M over 5 years to support 2 Centers-

Accelerate robust preclinical validation of candidate targets delivered by AMP-AD and other target discovery programs, through the development of open source tools, reagents and methods and by integrating a series of novel targets into drug discovery campaigns.

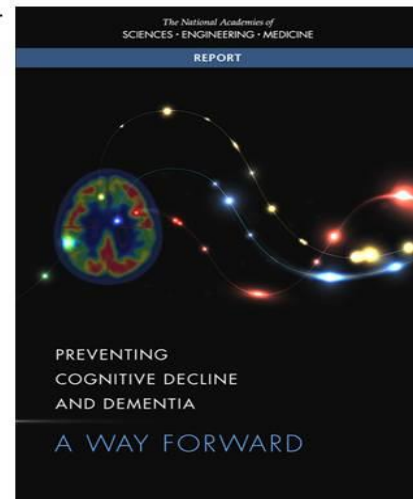
Center Structure



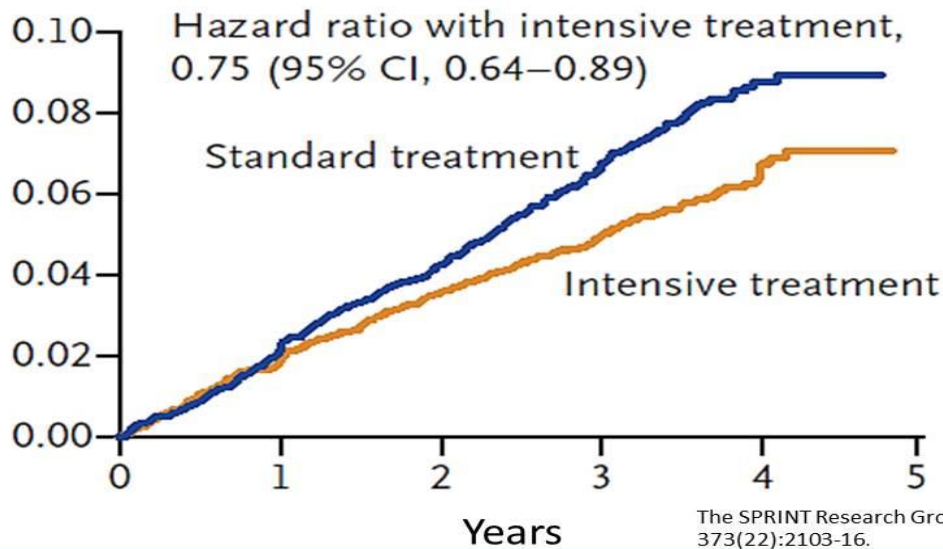
AHRQ-National Academies Study

- Assessment of **interventions** to *prevent* AD-type dementia, amnesic MCI, and age-related cognitive decline
- Insufficient evidence to justify a public health campaign
- Encouraging but inconclusive evidence:
 - Cognitive training
 - **Blood pressure management in hypertensives**
 - Increased physical activity

www.nationalacademies.org/dementia



SPRINT Study



SPRINT-MIND Research Question

SPRINT **M**emory and **C**ognition **i**n **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 Outcomes

- 19% reduction in the rate of developing MCI
- 15% reduction in the rate of composite MCI and probable dementia

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

Accelerating Caregiving Research

- Multiple funding solicitations
- 2017 & 2020 care/caregiving research summits
- AD/ADRD Health Care Systems Research Collaboratory
- Systematic review of care/caregiving interventions
- NIA's first Alzheimer's prize



iCare-AD/ADRD Challenge

Improving Care for People with AD/ADRD Using Technology Challenge



- Technology applications to improve dementia care coordination and/or care navigation
- Up to **\$400,000 in cash prizes**
- Submissions - October 1, 2018 through **June 30, 2019**
- See <https://nia.nih.gov/challenge-prize> for full prize details and archived webinar for participants

ALZHEIMER'S DISEASE-RELATED DEMENTIAS SUMMIT 2019

- **On March 15-16, 2019** on the main NIH Campus, Bethesda MD
- **Goal:** To update the research recommendations from ADRD 2016
- **7 Sessions:**
 - Multiple Etiology Dementias
 - AD/ADRD Health Disparities
 - Lewy Body Dementias
 - Dementia Nomenclature
 - Vascular Contributions to Cognitive Impairment and Dementia
 - Frontotemporal Lobar Degeneration
 - Emerging AD/ADRD – TDP-43 in Common Dementias, Traumatic Brain Injuries and AD/ADRD Risk
- **Final Recommendations** will be approved by NINDS Council in September, submitted to the NAPA Council in November, and will become ADRD Research Milestones after NAPA Council approval





**ADRD SUMMIT
2019**

Watch the archived videocast:

Day 1: <https://videocast.nih.gov/summary.asp?live=30225&bhcp=1>

Day 2: <https://videocast.nih.gov/summary.asp?live=30229&bhcp=1>

