



### 2024 Spring ADRC Meeting May 6-7, 2024, Austin, Texas

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Wisconsin Alzheimer's Disease Research Center UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH

# Disclosures

 I have received grants from NIA/NIH, Department of Veterans Affairs, State of Wisconsin, and UW-Madison to support my research program

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- UW-Madison has received grants from pharmaceutical companies for me to serve as a site PI to conduct treatment trials involving patients with MCI and dementia
- I have no conflicts of interest for this presentation



### Celebratory Historic Advances in Treatment of AD/ADRD Research

- Recent approval of anti-amyloid monoclonal antibodies (MABs), the first disease modifying treatments (DMTs) for MCI and early AD is monumental in AD therapeutics research
- In 2024, there are 164 active clinical trials assessing 127 dugs, including DMTs
- There are 23 studies [Phase 1 (6), Phase 2 (10), Phase 3 (7)] evaluating efficacy of drugs **targeting amyloid**
- 11 trials are evaluating efficacy of **anti-tau drugs**, including 4 in Phase 1, 6 in Phase 2, and 1 in Phase 3
- Four trials are evaluating efficacy of DMTs in **CU** participants at risk for AD, including AHEAD 3-45

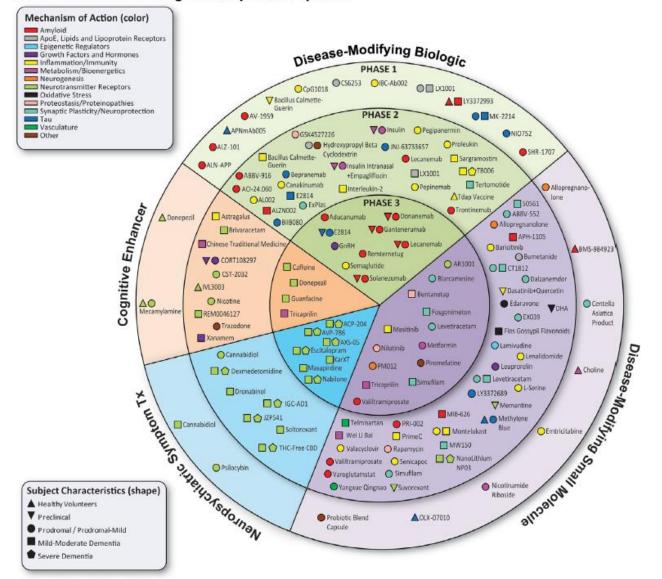
Cummings, J et al, Alzheimer's Dement. 2024; 10:e12465





### **Treatment Advances for ADRD**

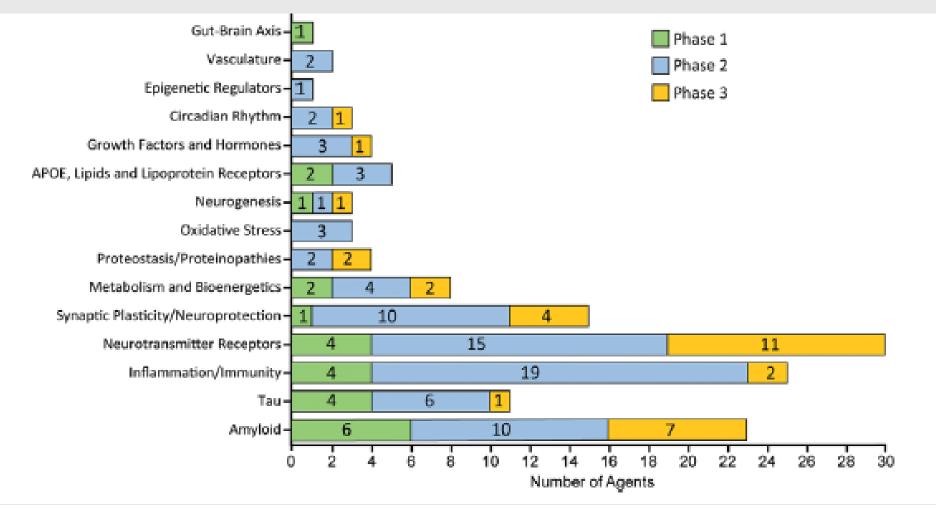
#### 2024 Alzheimer's Drug Development Pipeline



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### Treatment Advances for ADRD—Targeted Mechanisms

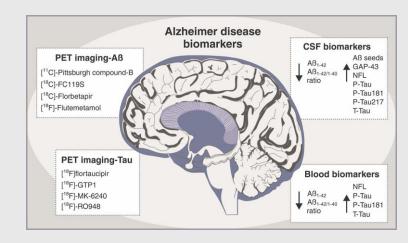


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#### **Notable Advances in ADRD Research-Biomarkers**

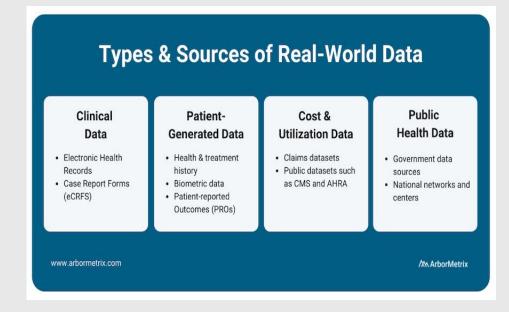
- Remarkable advances in the **discovery and validation of** multiple neuroimaging and fluid **AD/ADRD biomarkers** for:
  - Early detection and progression of AD pathology
  - Differentiation of AD from non-AD dementia
  - Response to treatments
  - Risk prediction
- Convincing evidence from autopsy series of multiple co-existing pathologies in decedents diagnosed with AD/ADRD. These pathologies include vascular damage, Lewy body disease, TDP-43, α-synuclein, LATE-NC, PART, ARTAG, etc.
- Concerted efforts to develop harmonized protocols for imaging and fluid biomarkers of co-existing pathologies and examine their impact on clinical phenotype, disease progression, treatment response, and mortality -CLARITI





# **Notable Advances in ADRD Research**

- Concerted focus on health equity and disparities research to better understand the neurobiology, clinical phenotype, & genetics of AD/ADRD in different races and ethnicities
- Enhanced community engagement to diversify study cohorts and improve generalizability of AD/ADRD research across the ADRC network
- Efforts to enhance generalizability through **Real World Data** collection from multiple sources, including EHR, cost and utilization data, public health data and patient-generated data





# **Overarching Scientific Themes**

# A) Non-amyloid mechanisms of AD/ADRD – TDP-43

# **B)** Generalizability of AD/ADRD Research

• The scientific themes permeate nearly all the sessions of this 2-day meeting



# **TDP-43 Focused Presentations**

### A) Basic Biology of TDP-43

Speaker - Margaret Flanagan, MD South Texas ADRC

### **B)** Advances in Clinical Definitions and Biomarker Development for LATE Speaker - David Wolk, MD

Penn ADRC





# **Generalizability Focused Presentations**

A) Tackling the Landscape of Selection Bias and Representation in AD/ADRD Research: WHO We Study Matters

Speaker – Rachel Whitmer, PhD UC Davis ADRC

B) Generalizability - Real World Data / EHR Focus

Speaker - Robert Califf, MD Commissioner Food and Drugs, FDA



