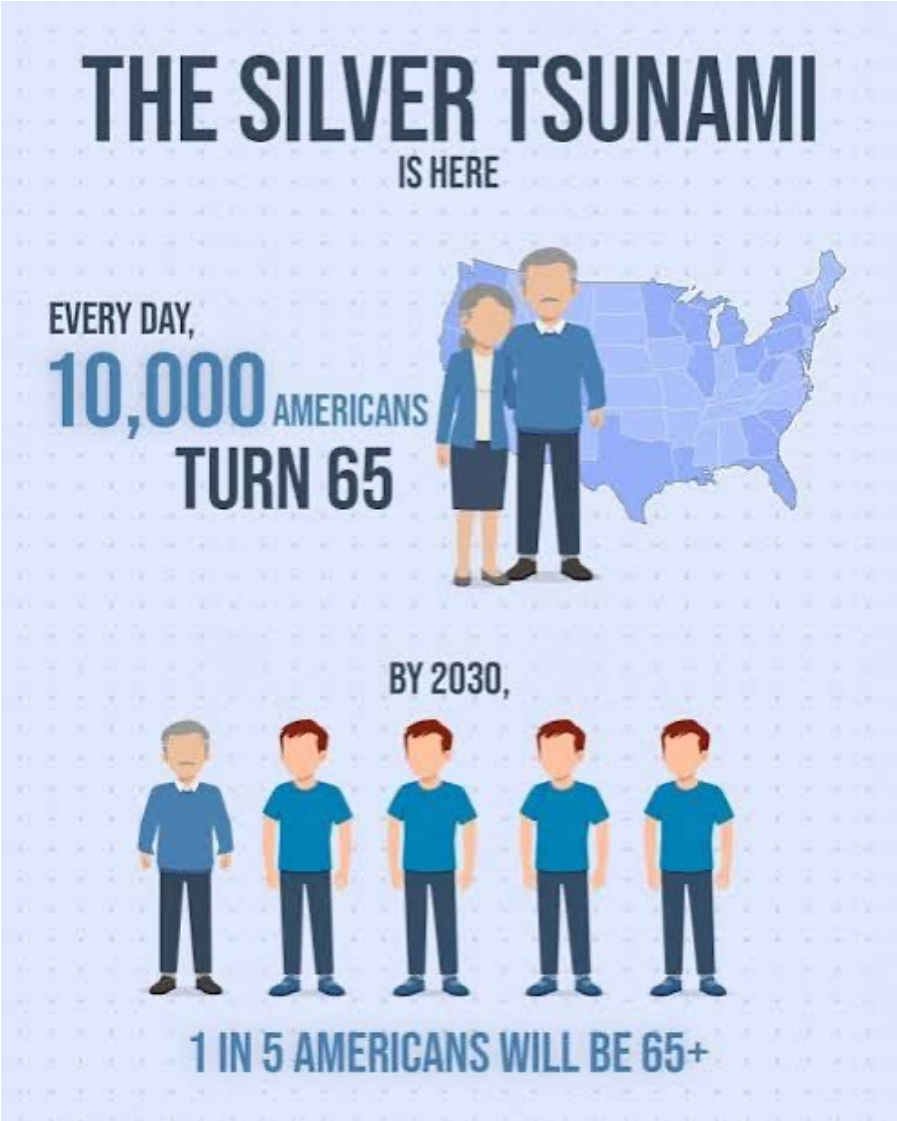
Advances in Memory Care

Janice Knoefel, MD
Professor | Department of Neurology
Outreach Recruitment and Engagement Core Leader | New Mexico Alzheimer's Disease Research Center

Sephira Ryman, PhD
Associate Professor | Department of Neurology
Associate Director | New Mexico Alzheimer's Disease Research Center

Aging population



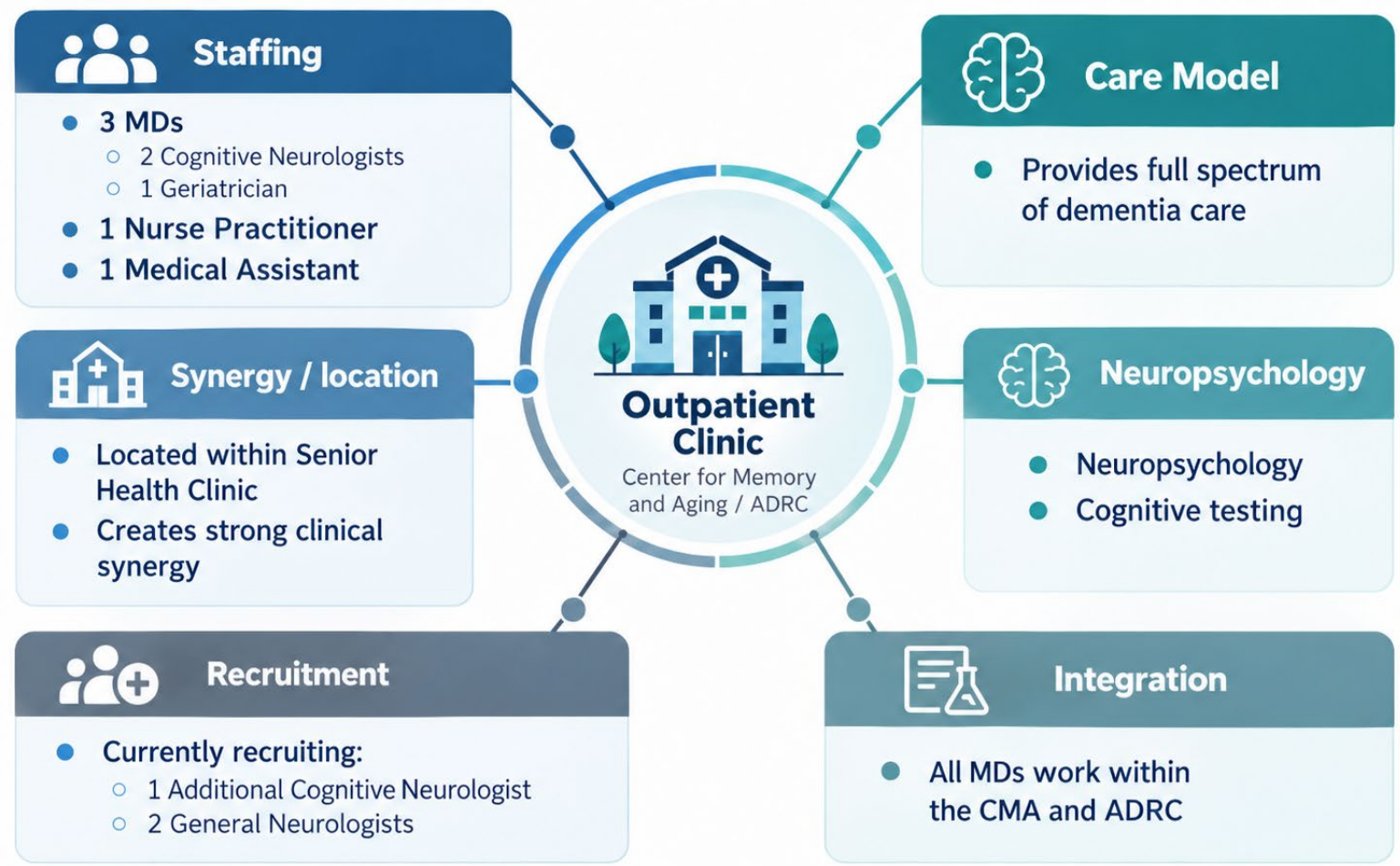
2025: 18.6% of our population was 65 and older.

2030: projected to increase to 20.7%.

NM in 2020: 46,000 people 65 and older had AD.

2023: AD 8th leading cause of death in NM

Memory and Aging Clinic



Importance of Dementia in NM & the US



7 MILLION
People in the US currently have dementia, which costs

>$409 B
Annually

~400
Participants will be recruited to P30 NMADRC through UNM CMA from 5/1/24-4/30/29

>180
Participants had a lumbar puncture and MRI over the past 15 years.

IN 2020:

46,000
New Mexicans aged 65 & older with dementia

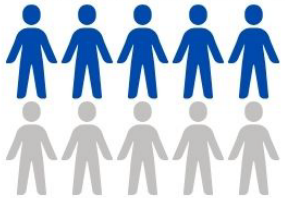
& IT IS EXPECTED TO GO UP

53,000
in the near future

1 in 3
Deaths in New Mexico is due to Alzheimer's Disease

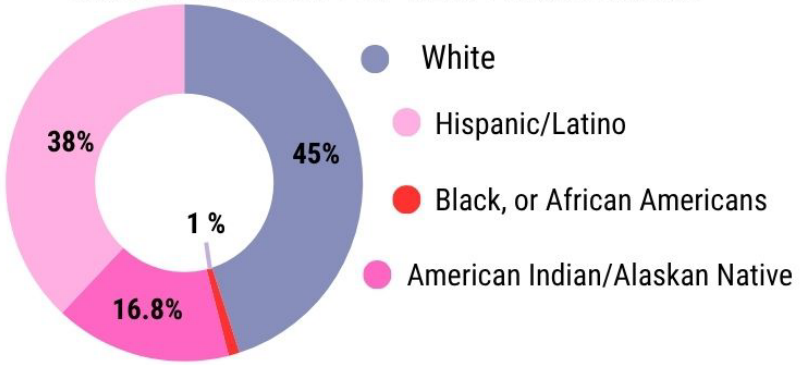
>50%
New Mexicans face significant challenges to access healthcare

BREAKDOWN OF ACTIVE COHORT AT NMADRC

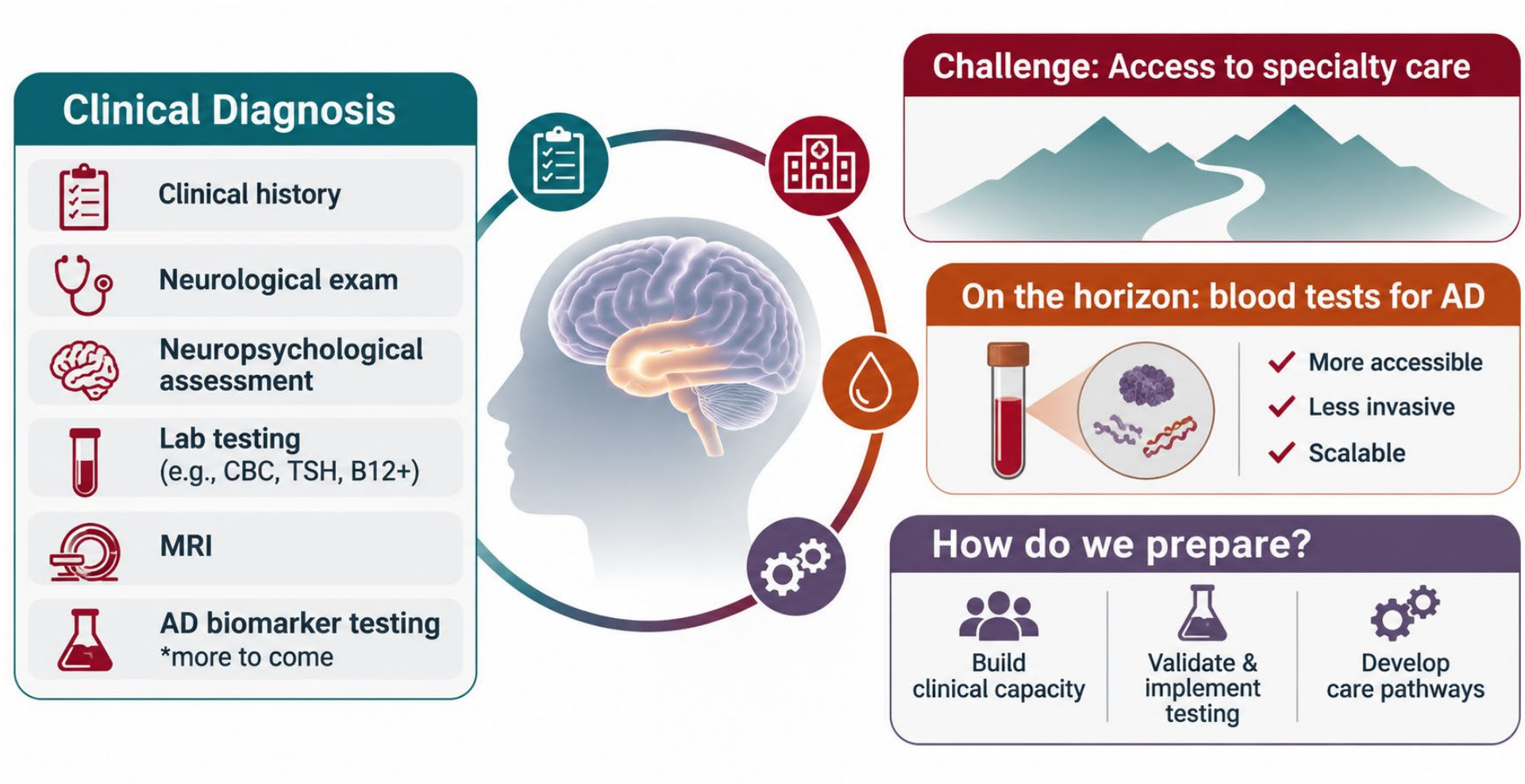


5 IN 10
NMADRC Participants are Hispanic/Latino/American Indian

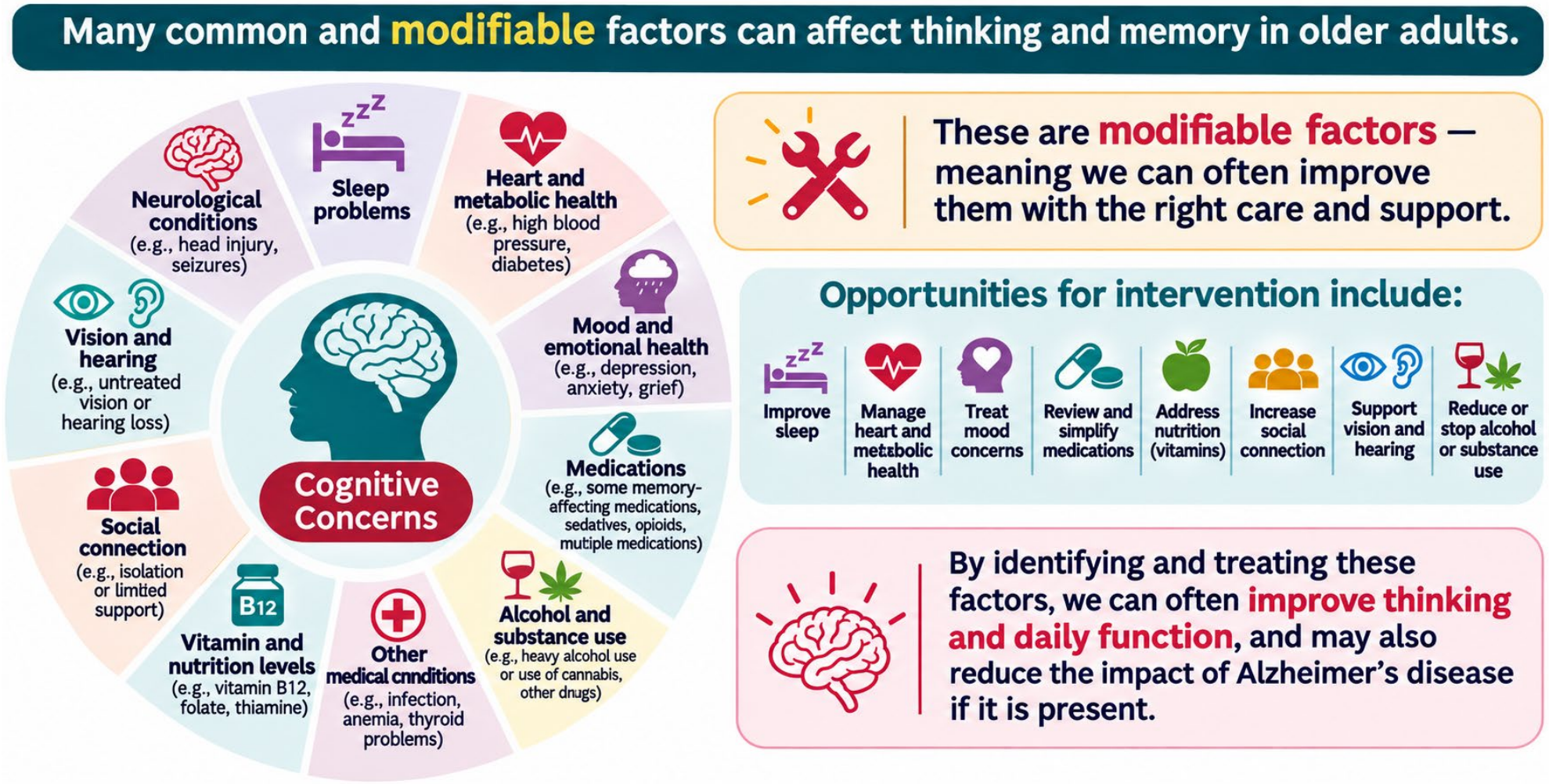
RACE & ETHNICITY OF NEW MEXICO ADRC



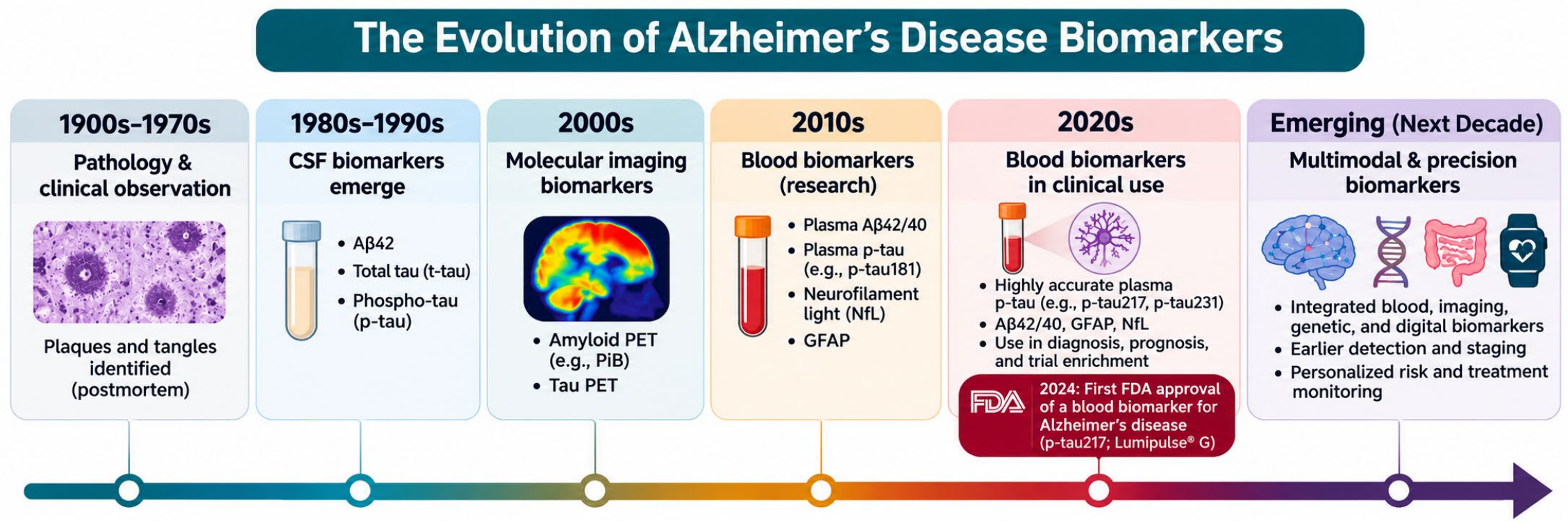
Dementia Diagnosis



Opportunities for Intervention



Biomarkers allow for early detection



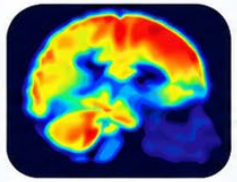
The Promise and the Peril

Many older adults — perhaps up to 40% — harbor Alzheimer's pathology despite having no symptoms at all.

Older adult with no cognitive or behavioral symptoms



Biomarker test
(e.g., blood, PET, or CSF)



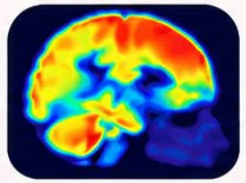
Alzheimer's pathology positive

- May never develop dementia
- May remain cognitively normal for life

Older adult with cognitive and behavioral symptoms



Biomarker test
(e.g., blood, PET, or CSF)



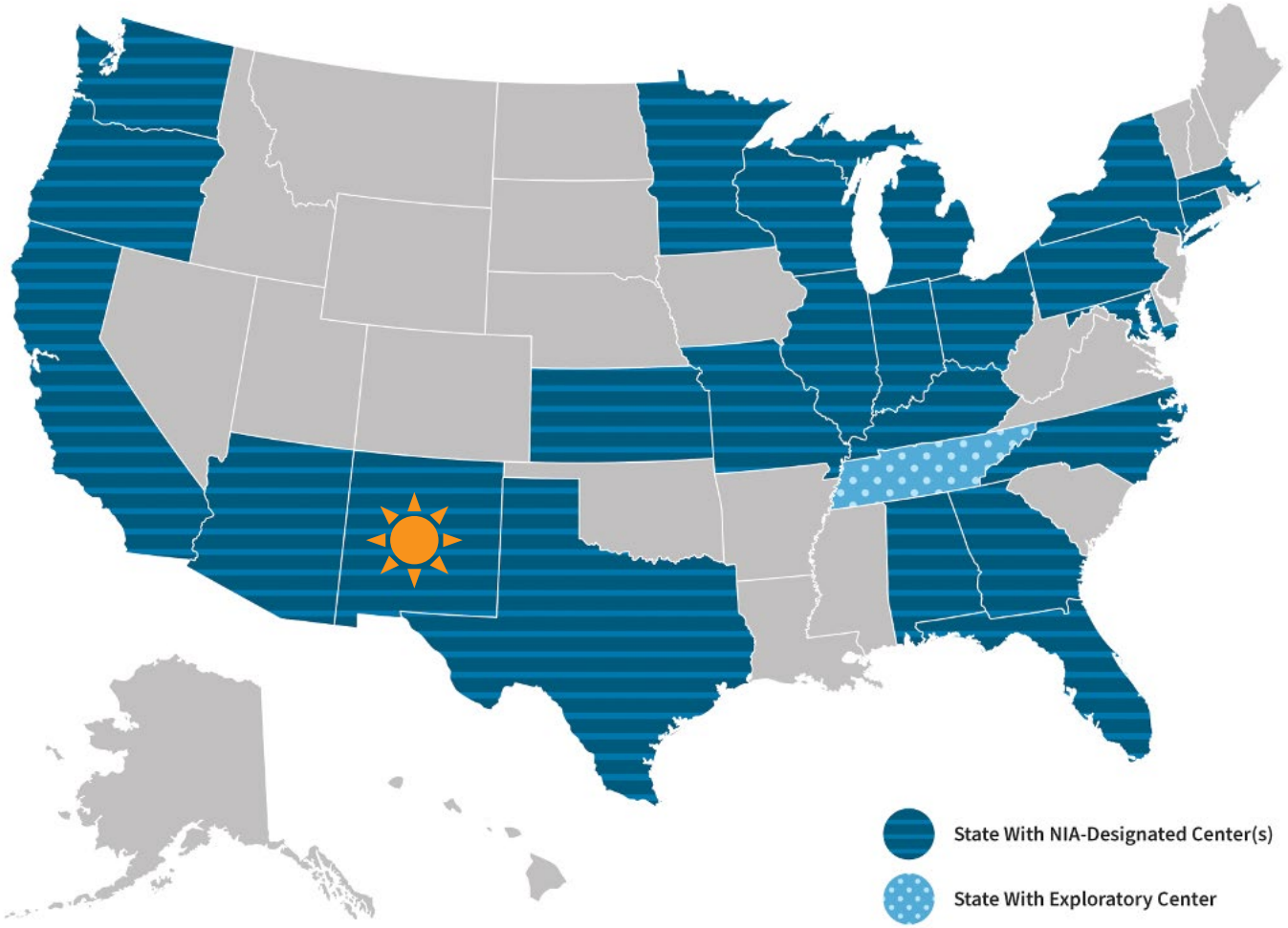
Alzheimer's pathology positive

- **The true cause of the symptoms may lie elsewhere**
  (e.g., other neurodegenerative, vascular, psychiatric, or medical conditions)

Key Takeaway: Alzheimer's biomarkers indicate the presence of Alzheimer's pathology, but a positive result does not always mean a person has (or will develop) dementia, and symptoms can have other causes.

History of UNM Center for Memory & Aging

- Established in **2016** with support of leadership
- **Goal:** research diseases causing cognitive impairment in people over **age 65**
- Since then, obtained over **$40 million** in NIH grant funding, including the **New Mexico Alzheimer's Disease Research Center (ADRC)**



ADRC is a Multidisciplinary Research Project

COLLABORATORS

The Alzheimer's Disease Research Center is comprised of multiple colleges, schools and departments across **UNM Health Sciences** and **Central Campus**.

UNM Center for Memory and Aging is at the forefront of this research

Aims:

- To use biomarkers to **improve** early diagnosis; to **increase** understanding of cerebrovascular dysfunction and neuroinflammation as a cause of dementia; Develop better treatments and to **promote** healthy aging in New Mexicans.

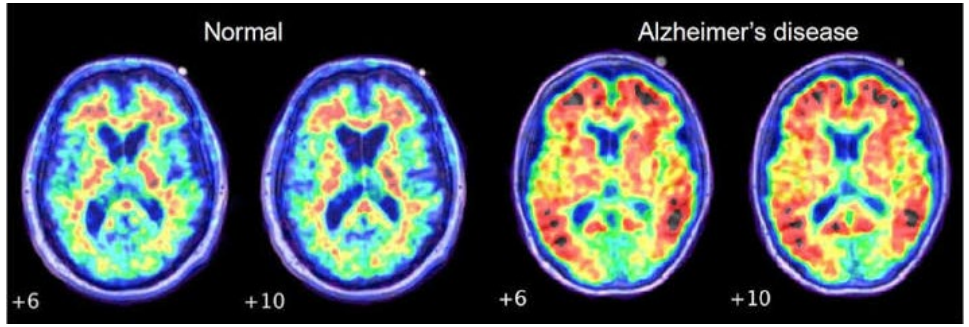
- Collaborate & **provide** resources to **support** Alzheimer's disease researchers at the local, regional & national levels.

- Educate the next generation of scientists & health care workers in NM.

UNM Center for Memory and Aging is at the forefront of this research

Successes:

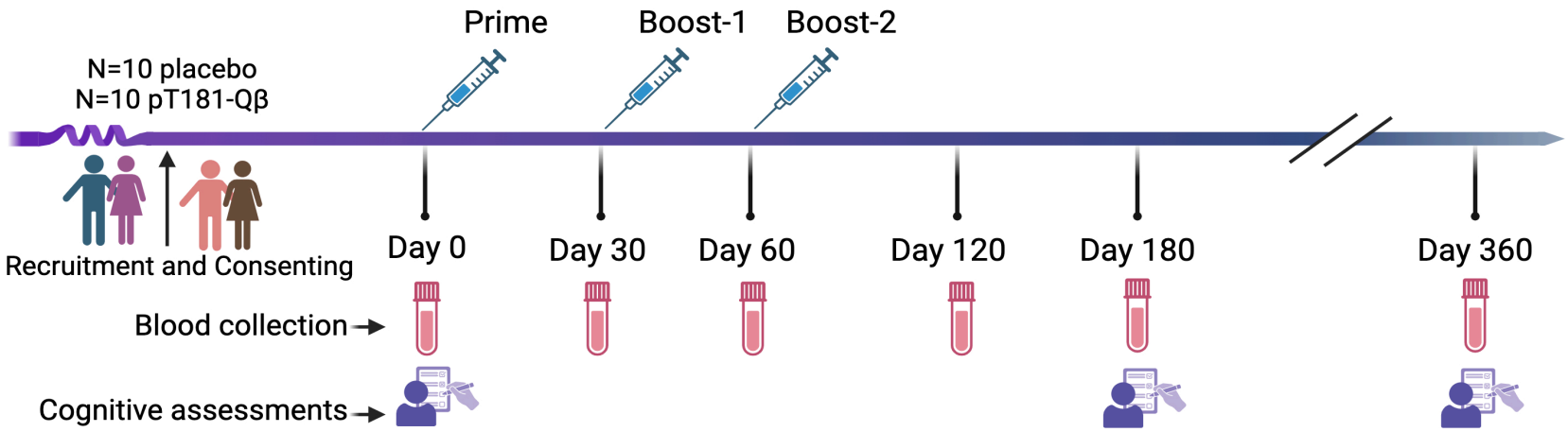
- Supporting dementia clinical and biomarker evaluations in New Mexicans.
- First to conduct Tau PET Imaging in New Mexico!
- Research Education Component has provided the first dementia-focused research education opportunities for students, clinician-scientists and research scholars.
- Recruited and trained Katarzyna Wilamowska (Geriatrician) who is now seeing patients in the Memory Clinic.
- Actively recruiting Behavioral Neurologist and two Neurology Faculty members.



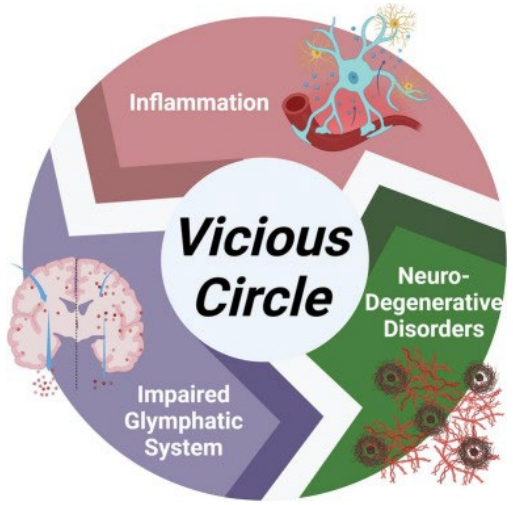
Clinical Trials: Tau Vaccine Trial



Phase 1a/1b trial is planned for early 2027!



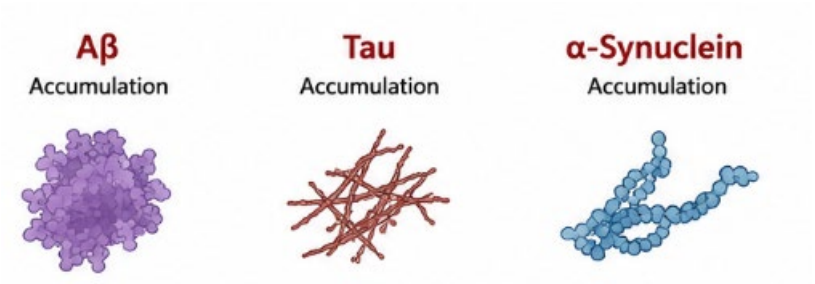
Clinical Trials: Intermittent Hypercapnia



A Complementary Therapeutic Paradigm:
Target the Clearance System

Traditional Approach: Targeting Individual Proteins

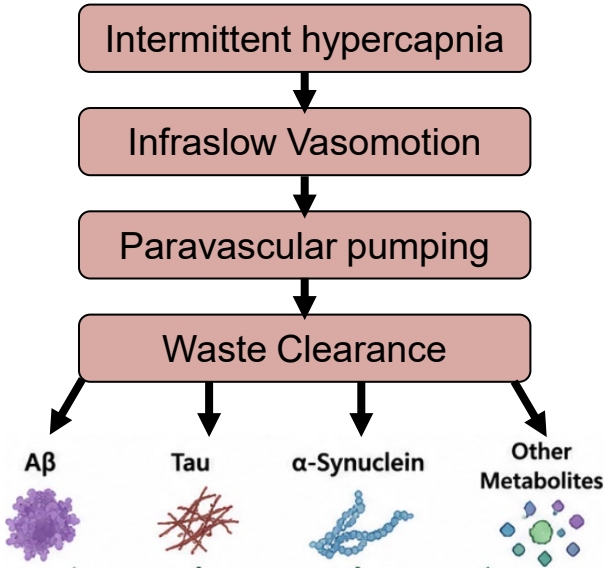
One protein, one target, one therapy



- Anti-Aβ Therapies
- Anti-Tau Therapies
- Anti-α-synuclein

Glymphatic Approach: Enhance Endogenous Clearance

One Mechanism, many targets



Outreach, Recruitment, and Engagement Core (at a glance)

Listen • Give • Equip • Connect

STATEWIDE COMMUNITY REACH



Rural • Hispanic/Latino • American Indian

FOUR AIMS | CORE STRATEGIES

1 Identify needs & resources

Advisory boards • Listening sessions • Knowledge translation

2 Build relationships by giving

Community activities • Partnerships • Community grants

3 Create dementia-friendly communities

Education • Provider training • Support groups

4 Align research with communities

Culturally responsive materials • Core coordination • Recruitment & registries

OUTCOME: trust → participation → retention → representative research

Research can only go so far…

Our goal is to expand UNM's clinical capacity and establish an integrated, statewide model of dementia care, aligned with New Mexico's Dementia and Brain Health Roadmap and legislative priorities.



Thank you!

We gratefully acknowledge the patients and their families for their participation in this research.

Funding:
The Laura Ann White Fund Aiding Neuropsychological Research into Lewy Body Dementia;
National Institutes of Health (R03 AG075408, P30 GM122734, P30 AG086404)



Thanks to Department of Neurology Chair, Amanda Deligtisch



Thank you Representative Herndon for championing this effort!



We also want to thank the legislature for the broad investments in workforce development and research.

NIH National Institutes of Health





