Wake Forest® School of Medicine

Wake Forest Alzheimer's Disease Core Centers

MESA Core

Core Leader: Steve Rapp, PhD
Core Leader: Kate Hayden, PhD
VASC-AD PI & Core Manager: Tim Hughes, PhD

What is MESA?

The **Multi-Ethnic Study of Atherosclerosis (MESA)** is a large, diverse, multi-site study of subclinical and incident vascular and metabolic disease.

Objectives: Study early CVD, characterize subclinical CVD and progression to clinical CVD

Goal: Find treatments to disrupt natural history of CVD and improve health

In 2000, 1,077 adults (aged 58 to 97 years, 46% African-American, 54% non-Hispanic Caucasian), were enrolled into the Wake Forest MESA cohort.

Why Partner with MESA?

- Hypertension and Diabetes are proposed to be modifiable risk factors for AD
- We don't know how subclinical CVD affects AD risk, especially in African Americans
- MESA has tracked clinical and subclinical CVD in the cohort for over 15 years
- Few existing AD studies have access to such detailed cardiovascular phenotyping:

Metabolic **Vascular**

Genetic **Cognitive**

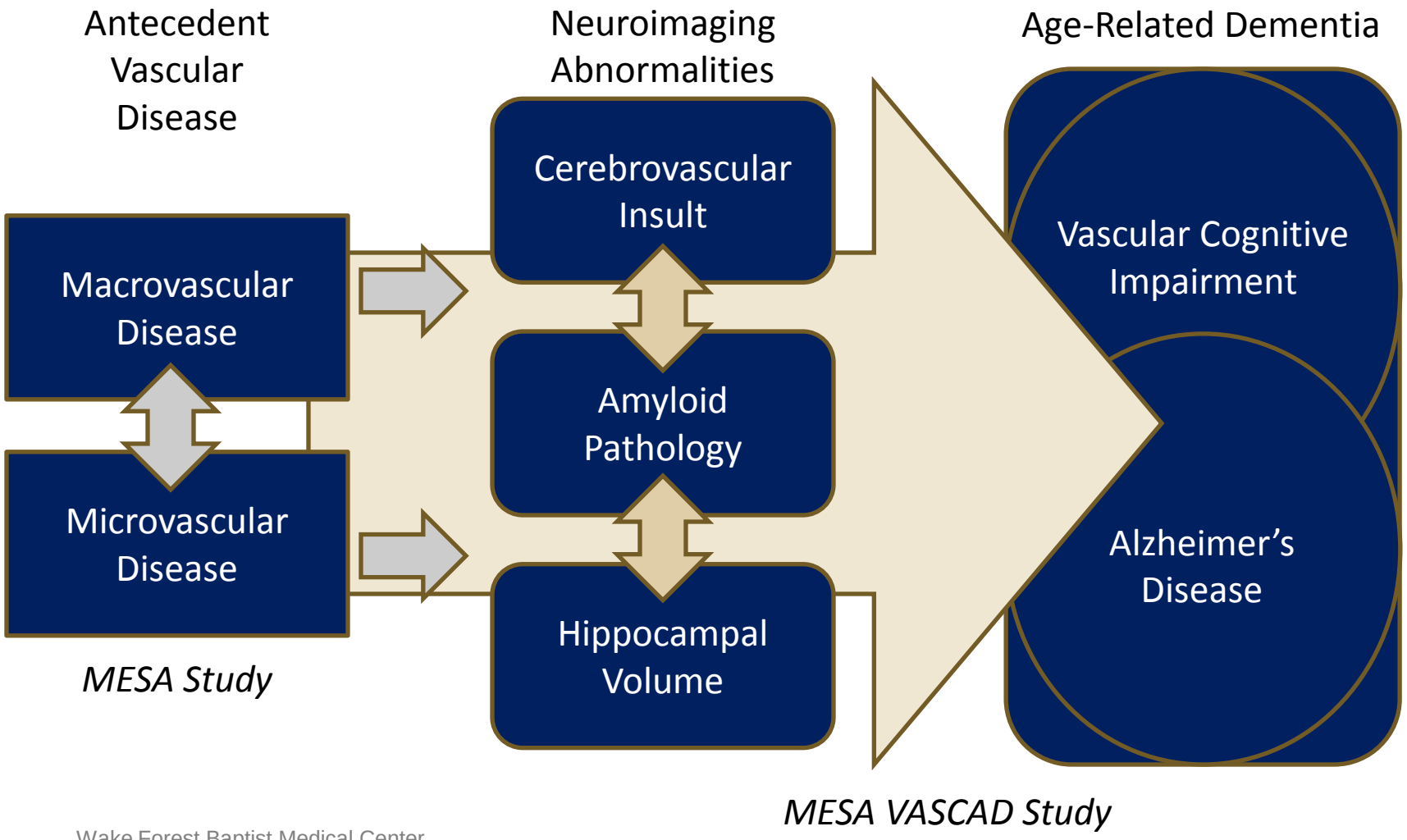
- Our Center's theme is focused on metabolic and vascular contributions to AD and related disorders

MESA Core Aims

1) Characterize **MCI, AD, VCI,** and other related disorders, and facilitate research focused on relationships between cognition and **metabolic** and **vascular risk factors**;
2) To conduct **longitudinal follow-up** of MESA participants
3) To **provide resources to foster** systems and pathway analyses of genetic, epigenetic, and phenotypic data to identify the metabolic and vascular pathways that predict dementia risk
4) Facilitate investigations examining the impact of **race on relationships** between metabolic and vascular pathways, cognitive function, and AD biomarkers.

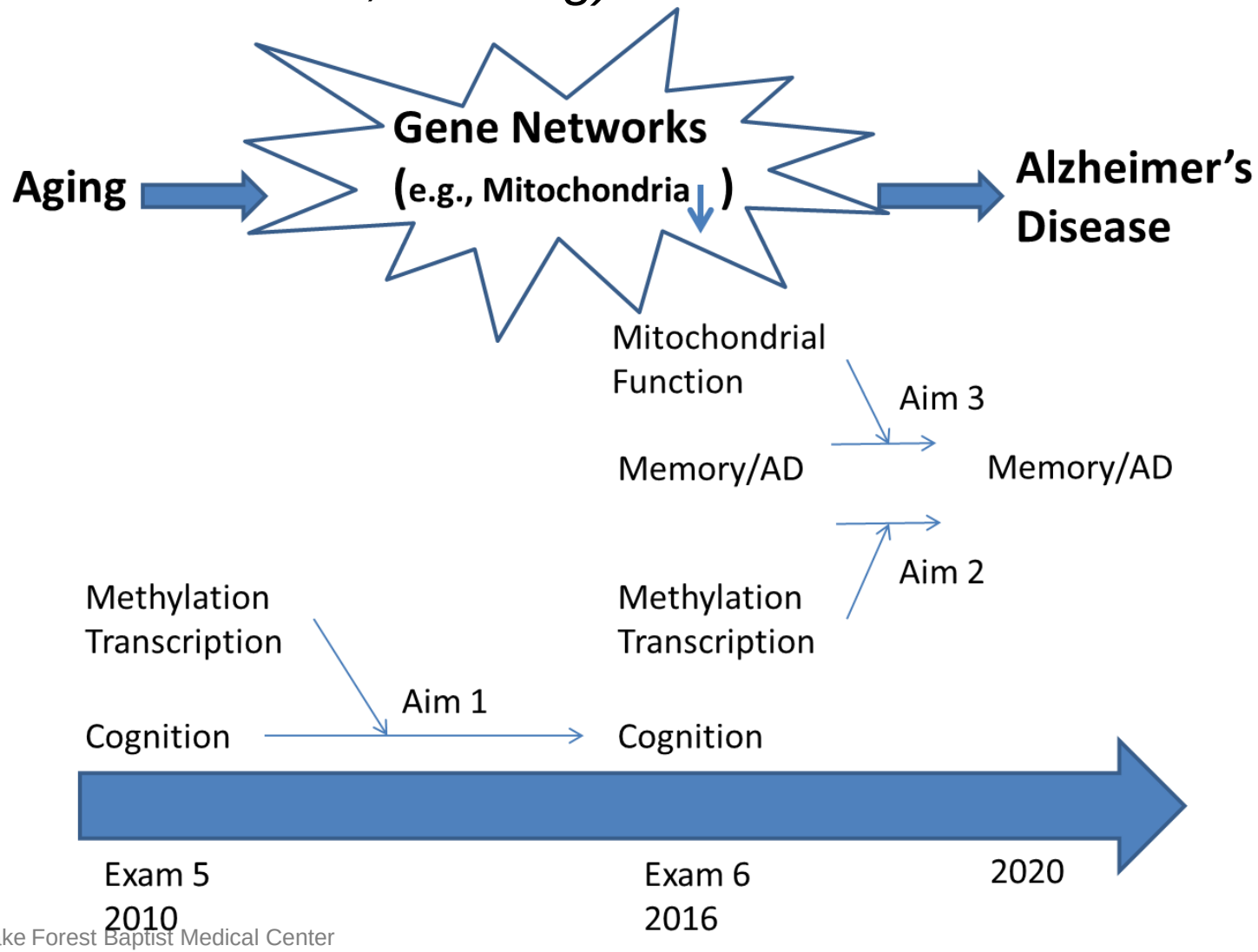
MESA AD Studies Underway

MESA VASC-AD (R01 AN3889446; PI: Hughes)



MESA AD Studies Underway

Cell-Specific Genomic Features of AD Progression (R01 AG054474; PI: Ding)



MESA Core Resources

n=540 (45%AA:55%EA)

- Detailed cognitive assessments, closely aligned with the clinical core
- Neuroimaging (MRI, amyloid PET)
- Collection of CSF (40%) and brain tissue
- Repeated MRI, cognitive testing and clinical assessments 3 years later

Please contact us for more information, we are eager to collaborate with you!

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