1) Overview of the Duke/UNC ADRC
2) Description of Research Cohorts
3) Description of Available Samples and Specimens
4) Web tools for accessing ADRC resources
Duke and UNC were awarded a NIH Center grant in September 2021.
Our theme: Age-related factors across the lifespan

Prior AD studies have mostly focused on:

- Older adults with symptoms
- High risk/rare variant families
- Educated, high SES, white
Now accepting applications!! Funding begins July 2024

Development Projects: $100K per year, up to two years
- We will award at least one at both Duke and UNC-CH
- Goal is to stimulate new lines of research related to our theme, with high potential for external funding

REC Scholarships
- We will award up to 4 new scholarships
- $10K per year + curriculum, community

Letter of Intent due Oct 16, Full applications Nov 30
Factors considered in selecting DP awardees and REC Scholars:

- Scientific merit, innovation, significance of proposed work
- How well does it align with our theme?
  
  *Age-related changes across the life span that contribute to the development, progression, or experience of AD and related dementias*

- Does it bring diversity or new perspectives to the AD research workforce?

- How will the investigator *utilize the resources* of the Duke/UNC ADRC?
When it comes to fighting Alzheimer’s disease, we’re all on the same team.

Our Vision: Transform aging brain care and research across eastern North Carolina

What do we do?
• Contribute locally generated human data to databases and repositories for AD & related dementia (ADRD) research
• Provide resources and opportunities to any investigator interested in ADRD research
Our goal is to offer unique data to the global fight against AD

Two cohorts complete the Uniform Dataset (UDS):
- Memory & Aging Study: Longitudinal Cohort
  - Ages 45-80, 20% non-White, 30% rural
  - Target is 420 people (currently ~160)
  - Up to 100 with MCI/early AD; others normal
  - Most with family history or APOEε4 gene
- Young Cohort of people ages 25-44 (one visit)
  - So far, only 15 participants in YC

Data collected in addition to UDS:
- Retinal imaging
- High resolution, advanced MRI techniques
- Sensory and mobility measures
- Plasma, buffy coat, DNA, Cerebrospinal fluid
The Duke/UNC Center collects, curates, and distributes resources:

Available for researchers:
• Over 1300 donated human brains in the Bryan Brain Bank
• Blood, DNA, and cerebrospinal fluid from past and present participants
• Integrated clinical, biomarker, imaging data, with help to identify appropriate variables and study design
• Rosters of individuals willing to participate in research
• Statistical support and consultation
• Collaborators, experts, educational opportunities in almost any aspect of ADRD research

For the community:
• Opportunities to enroll in studies
• Connection to medical or support services for dementia
• Information and awareness
• Workforce development; job training; education
Other resources available: Memory Clinic Biorepository

Biospecimens Bank
Provider: Andy Liu, MD

The Duke University School of Medicine, Department of Neurology collects cerebrospinal fluid and plasma from patients in the Memory Disorders Clinic along with basic demographic and clinical data. These biospecimens are available to all researchers. We ask that all researchers submit a 1 page summary of the project before receiving biospecimens and acknowledgement of the use of this biorepository on all publications.

Contact: Sarrah Belhadj (Sarrah.belhadj@duke.edu)

See what samples and data are available: ARENA Gateway: Biospecimens Bank

More details on Biospecimens Bank

Start a DUKE-UNC ADRC Resource Request
Other resources available: Memory & Cog Sub-Study

Memory & Cognitive Health Study – a nested sub-study of MURDOCK

Plasma  Whole blood  Serum  Cognitive Instruments

The Memory & Cognitive Health Study was a study of 1,595 MURDOCK participants conducted between 2009 and 2016. The Memory & Cognitive Health Study was a nested sub-study of the MURDOCK Study Community Registry and Biorepository, a 12,526-participant community-based longitudinal cohort recruited from a region centered on Kannapolis, NC and encompassing Cabarrus County, NC. Of the 1,595 sub-study enrollees, 880 completed a 2-year follow-up visit.

See what data is available: Memory & Cognitive Health Storefront

More details on Memory & Cognitive Study (MURDOCK)
You might notice a few nods to basketball in our naming schools, departments, and 1 goal.
Our data resources are organized in an integrated database:

The Alzheimer’s disease RELational and INtegrated dAtabase:  The ARENA

You can query the ARENA through an online portal that we call the Gateway
Your friendly, neighborhood “concierge” for AD research

A post-doc and her mentor walk out of a symposium…

…with a new idea about Alzheimer’s disease.
Maybe the post-doc needs

- Access to people interested in being in her study
- Access to stored blood, CSF, brain specimens
- Connection to experts and collaborators
- Didactic training or mentoring in ADRD
- Access to novel biomarkers
- Access to datasets and analytical expertise
- Pilot funding

https://dukeuncadrc.org
Statistical Analysis

Dr. Sheng Luo, co-lead of the Data Management and Statistics (DMS) Core

- Dr. Luo's team offers specialized expertise in statistical design and analysis, providing valuable consultation for research articles and grant proposals focused on Alzheimer's disease.

- Early stage investigators, graduate students as well as established investigators working on Alzheimer's-related projects are welcome to consult with Sheng and his group.

- Meet and learn more from Dr. Luo on January 25th at the REC Core IDEAS Forum.

Join the IDEAS listserv!
Pilot studies and REC Scholarships are a great way to join the team!
We are here to help as you develop your application

Contact Information:

Development Projects (pilot studies), Michelle Cooley michelle.cooley@duke.edu

REC Scholarships, Jacquie Goeking Jacquelyn_Goeking@med.unc.edu

Programmatic/scientific questions, please contact either:
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Gwenn Garden, MD, PhD, ADRC Co-Director (UNC) gwenn.garden@med.unc.edu

For more information please visit: https://dukeuncadrc.org/

General questions, please email: Duke-UNC_ADRC@duke.edu