

The goal of TARCC is to advance research efforts in Texas that lead to better diagnosis, treatment, and prevention of AD. To that end, TARCC researchers are aggressively pursuing a number of cutting-edge objectives aimed at improving the efficiency of early diagnosis, understanding the disease mechanisms at work in Alzheimer's, and uncovering effective disease prevention.

TARCC researchers are currently examining the role of biological and clinical markers for inflammation, cardiovascular disease, cardiovascular risk factors, and hyperinsulinemia in the development and progression of AD. These factors are investigated longitudinally and with regard to how they may differ between Mexican American and non-Hispanic European citizens of Texas, as outlined below.

### Specific Research Aims

**Aim 1:** Examine how findings from the original research aims evolve over time by using longitudinal data obtained on cohort participants. Evaluation of baseline characteristics will be extended to investigate the impact of the factors outlined in the original aims on the rate of disease progression.

**Aim 2:** Investigate how the significant findings from the original research aims differ between Mexican Americans and non-Hispanic Europeans.

**Aim 3:** Maintain the longitudinal database and add repeated visits with collection of samples and clinical data from each participant to the tissue repository of participants diagnosed with AD, MCI or normal controls.

**Aim 3a:** Enroll into the Texas Harris Alzheimer's Research Study, individuals diagnosed with probable AD, MCI, and cognitively NC. The appropriate number within each diagnostic classification of participants will be determined by the TARCC Advisory Steering Committee. Approximately 40% of the Texas Harris Alzheimer's Research Study participants are Mexican American.

**Aim 3b:** Maintain a well-curated Tissue Bank and Data Coordinating Center to ensure proper quality control of samples and data collected by TARCC sites. The Data Coordinating Center will generate and distribute updates on patient accrual and demographics, as well as perform quality control analyses to ensure the integrity of all consortium data. The Tissue Bank will use best lab practices to ensure the integrity of TARCC samples.

**Aim 3c:** As resources allow, make data and samples collected and generated by the consortium available to interested and appropriate Alzheimer's researchers across Texas. Project approval by the TARCC Advisory Steering Committee is required prior to release of any TARCC resources. Projects may be submitted by non-TARCC institutional Alzheimer's researchers across Texas.