Research Studies

STATEWIDE CONSORTIUM STRIVES TO MAKE TEXAS A GLOBAL LEADER IN ALZHEIMER'S DISEASE RESEARCH

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The Texas Alzheimer's Research & Care Consortium (TARCC) is a statewide collaborative research effort that includes UT Southwestern Medical Center, the University of North Texas Health Science Center, Baylor College of Medicine, Texas Tech University Health Science Center, and the UT Health Science Center at San Antonio. TARCC was established in 2005 to improve diagnosis, treatment, and prevention of Alzheimer's disease.

Each site recruits individuals who are diagnosed with Alzheimer's disease (AD) or Mild Cognitive Impairment (MCI), or who are healthy aging controls. Participants undergo advanced analyses of blood proteins, clinical histories, neuropsychological functioning, and metabolic and genetic data in conjunction with demographic information. More than 2000 participants have been enrolled, and more than 1,500 have returned for annual follow-up visits to provide longitudinal data that will aid in understanding the course of the disease.

Striving to make Texas a global leader in Alzheimer's disease research, TARCC investigators have analyzed more than 26 million genetic markers in more than 700 participants using state-of-the-art genetic technology. Preliminary analyses have discovered genes that affect disease risk and may lead to the development of new drugs and therapies to improve the quality of life of Alzheimer's patients. In addition, TARCC is collaborating with the Alzheimer's Disease Genetics Consortium in the largest study of Alzheimer's genetics to date.

In 2010, TARCC researchers created a serum-protein blood test for Alzheimer's disease that has shown promise in terms of diagnostic accuracy. Although further validation is required, the blood test, as part of a multi-tiered screening approach, holds the potential to advance geriatric medicine globally. In addition, TARCC is evaluating links between heart disease, cholesterol, and insulin metabolism in the development of Alzheimer's disease. TARCC investigators also have developed new ways of measuring cognitive functioning and analyzing neuropsychological data that have shown promise in disease staging, differential diagnosis, and enhancing the efficiency of neuropsychological assessment in individuals with known or suspected dementia.

The resulting relational database of clinical, neurocognitive, and biological data that is housed at UT Southwestern provides a rich platform that allows for unique, multimodal investigations into the biology and clinical aspects of Alzheimer's disease, helping to propel Texas into the forefront of neurodegenerative disease research.

New Fund Promotes Statewide Collaboration as Texas 'Game-Changer'

The Darrell K Royal Research Fund for Alzheimer's Research was launched February 28 at a Texas Senate Interim Joint Committee hearing on Alzheimer's disease. Named after legendary UT football coach Darrell Royal, who is now living with Alzheimer's disease, the fund will focus both on research and care for Texans dealing with Alzheimer's.

The fund will support a collaborative effort throughout the State of Texas in developing new treatment strategies and methods of prevention. In her testimony before the committee, Mr Royal's wife, Edith, stressed the need for sharing research discoveries to more quickly advance the fight against Alzheimer's disease and related dementias.

Lance Armstrong (left), Edith and Darrell Royal, and Matthew McConaughey address a joint legislative committee in Austin.

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