Mild Cognitive Impairment (MCI) is a state of memory loss that is between normal aging and early Alzheimer’s disease. It may involve problems with memory, language, thinking and judgement that are greater than normal age-relates changes. These symptoms of early memory loss are often noticed by the individual, as well as family members or friends. The purpose of the MIND study is to determine whether the use of nicotine patches improves memory and functioning in adults diagnosed with MCI. It is known that nicotine, a natural plant derivative, stimulates receptors on nerve cells in the brain that are important for learning and memory. This study is looking to recruit healthy, non-smoking adults, age 55+ who notice changes in their memory or whose family members notice changes, may be eligible to participate. Individuals who qualify will be placed on either daily nicotine or placebo patches.

NIC- MIND  PI. Dr. Sudha Seshadri

**Upcoming studies that are not yet enrolling patients**

**Worrying about your memory?**

PI Dr. Sudha Seshadri & Dr. Claudia Satizabal

Age-related cognitive impairment and dementia represent one of the greatest risks to public health both in the US and globally. Alzheimer’s disease is the most common cause of cognitive impairment, but small vessel disease has also been shown to be major contributor. There are currently no identified biomarkers to assist with early detection and identify which people should be proactively treated. MarkVCID is a consortium of seven US academic medical centers whose mission is to identify and validate biomarkers for the small vessel diseases of the brain that are related to cognitive impairment and dementia (VCID).

**Beats and the Brain!**  Heart Function and Brain Health  PI Dr. Alicia Parker

This research study is examining the link between heart health and brain health and to see if there is any relationship between diastolic dysfunction and the development of cognitive impairment in individuals 60 years and older. It involves obtaining echocardiogram to assess heart health, MRI to visualize structural changes in the brain and neuropsychological testing to look for the pattern of cognitive impairment and development of incident mild cognitive impairment, dementia and Alzheimer’s disease over a period of one year.

**Your Walk can Talk!**

PIs Dr. Mini Jacob UTHSCSA, Dr. Dan Nicolella SWRI, Dr. Rick Morris GAITIQ

This study will focus on the relationship between gait (the way you walk) and cognition(your memory and thinking skills) with the goal of identifying the gait pattern that reflects cognitive loss. Participants, age 65 and older, will complete a comprehensive battery of neuro-psychological tests and their gait will be assessed using 2 gait analysis systems – an automated walkway and a 3-dimensional gait analysis system. Findings may pave the way for use of gait assessment as a screening tool to identify persons at risk for dementia.

**STOMP- AD**

PIs Drs. Nicolas Musi, Miranda Orr and Mitzi Gonzales

The underlying causes of cognitive decline in Alzheimer’s disease are largely unknown. In mouse models of Alzheimer’s disease, we identified cellular senescence as an important mechanism. Cellular senescence is a complex stress response involving disturbances in cell cycle activity and promotes inflammation. Senescent cells accumulate in many tissues with aging, including the brain, and their clearance improves tissue structure and function. Preclinical studies showed that the medications dasatinib and quercetin in combination (D+Q) cleared senescent cells, restored cerebral blood flow, reduced abnormal protein accumulation, and improved cognition. This study aims to evaluate the safety and efficacy of intermittent D+Q treatment in older adults with early Alzheimer’s disease. This is an open label study and individuals 65 years and older with a clinical diagnosis of AD will be recruited.

**Graduate**

PI Dr. Donald Royall

This multicenter study will evaluate the efficacy and safety of gantenerumab versus placebo in participants with early (prodromal to mild) AD. Eligible participants will be randomized either subcutaneous (SC) injection of gantenerumab or placebo. After this initial study, eligible participants will be offered the opportunity to enter into an extension study where all patients will receive gantenerumab. Participants not able to enter the extension study will participate in a long-term follow-up period for a maximum of 50 weeks after their last gantenerumab dose.