

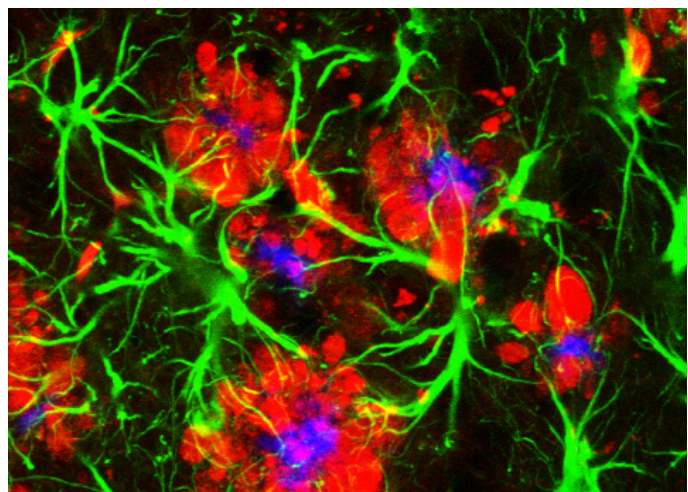
2025: CELEBRATING 40 YEARS OF THE UNIVERSITY OF KENTUCKY ALZHEIMER'S DISEASE RESEARCH CENTER AT THE SANDERS-BROWN CENTER ON AGING

BY APRIL L. STAUFFER AND LINDA J. VAN ELDIK

This year marks the 40th anniversary of the UK Alzheimer's Disease Research Center (UK-ADRC) at Sanders-Brown! In 1984, the National Institute on Aging launched its ADRC grants program, and Sanders-Brown was among the prestigious first class of just 10 awardees. Forty years later the UK-ADRC continues to carry that designation, world-renowned for its significant contributions to the field. As the UK-ADRC celebrates this milestone, we reflect on how the Center has evolved over the years and highlight some of its notable achievements.

The late Dr. William R. Markesbery led the UK-ADRC from its inception in 1985 until his death in 2010. He was ahead of his time in recognizing that in order to understand how disease changes the brain, one must know what typical, healthy brain aging looks like. He began recruiting cognitively intact individuals for a longitudinal study. These research participants are followed annually with detailed medical, cognitive, and functional evaluations until death. Many have undergone brain scans, and most participants have consented to brain donation upon their death. They are passionate about this work, not only for themselves, but for generations to come!

In 2010, Dr. Linda Van Eldik joined Sanders-Brown as the Director and brought with her a desire to increase translational research, meaning bench to bedside. Over the last decade



*Brain inflammation in an Alzheimer's
Disease mouse model.*

the Center has grown and is known as a highly collaborative ADRC that is making major scientific advances and that provides resources, biospecimens, data and training to individuals within UK and around the world.

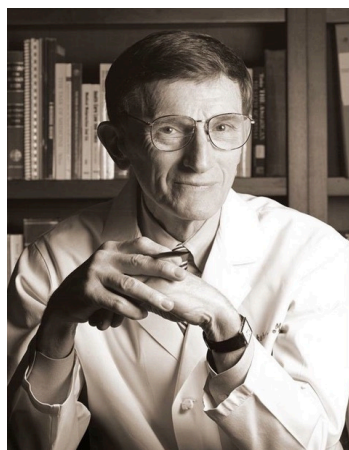
UK-ADRC scientific advances have included understanding more about neuropathological changes in the brain as we age, genetics associated with different types of dementia, and clinical research to test the safety and effectiveness of new medications and interventions.

Dementia is complex and the UK-ADRC is trying to untangle and make sense of it. Findings from the longitudinal study brain bank show that in advanced age, the underlying brain mechanisms that cause disease are “mixed.” Having even four types of misfolded proteins is a common

feature of aging, seen in 20% of dementia diagnoses in the longitudinal study.

An important contribution of the UK-ADRC has been the detailed characterization of LATE (limbic-predominant age related TDP-43 encephalopathy), a dementia-causing disease with memory and thinking problems like Alzheimer’s, but caused by the buildup of a different protein called TDP-43. These collaborative studies started with defining the neuropathology and genetics behind LATE and were translated into a currently ongoing first and only clinical trial for LATE in the world, being done right here in Kentucky. The research on LATE is one example of the Center’s major focus on translation of basic science discoveries into human studies as quickly as possible. We are part of more than thirty clinical trials, investigating new drugs and treatments!

The UK-ADRC has also contributed to our understanding of risk factors for the onset and progression of brain disease. Many studies have revealed the importance of lifestyle interventions such as exercise, diet, music, and sensory modalities to reduce risk and delay progression of dementia.

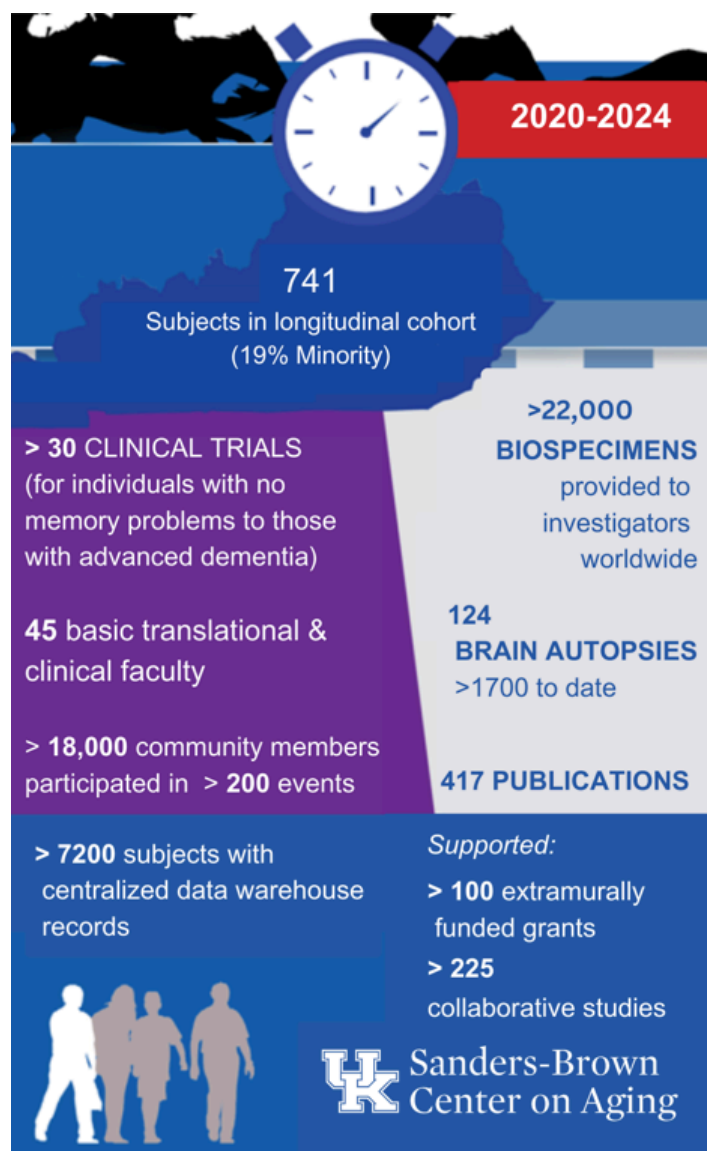


*Colonel Harland Sanders & John Y. Brown, Jr.,
Dr. William Markesbery, & Dr. Linda Van Eldik*

We are also making an impact through our education and training programs for families, trainees, and staff. For example, we developed online training for certified nursing facility staff and an online activities programming resource, Brain Health Activities, for those with cognitive impairment and their caregivers. In addition, there has been a long-standing and trusting partnership with the Kentucky Black and African American community. We developed the “Book of Alzheimer’s for African American Churches” and also work closely with African American churches to increase understanding of healthy brain aging.

In celebration of the UK-ADRC, we extend our gratitude to the faculty, staff, and the many research volunteers who have given so much to expand our understanding of dementia and healthy brain aging.

The UK-ADRC has been and continues to be a leader in the fight against Alzheimer’s disease and all dementia. Its proven record of discovery and collaboration is making a significant impact not only in Kentucky, but around the globe. Lexington is blessed to have this jewel in its backyard!



Sanders-Brown personnel at Turfland Clinic

Would you like to know more about the work of Sanders-Brown?
Visit our website at <https://medicine.uky.edu/centers/sbcoa>, follow us on Facebook (UK Sanders-Brown Center on Aging) and/or X (@UKSBCoA).

Interested in supporting research through philanthropy?
Contact Beth Wells at 859-319-6886.

