Dedicated clinician, professor and researcher

Dr. Paul E. Schulz is a professor in the Department of Neurology and director of the Memory Disorders and Dementia Clinic at McGovern Medical School at UTHealth. He received his combined BA/MD degrees from Boston University in 1984 and did a medical internship there. Schulz then attended Baylor College of Medicine for his residency in neurology and stayed for a laboratory fellowship in cellular neurophysiology, after which he became an assistant professor at Baylor College of Medicine.

Later, he became an associate professor of neurology, neuroscience and translational biology and molecular medicine at Baylor College of Medicine. He was also the vice chair of education for neurology, the deputy chair of the Methodist Neurology Service, and directed the Cognitive Disorders Clinics at Baylor College of Medicine and the Michael E. DeBakey VA Medical Center.

At the Mischer Neuroscience Institute, a joint project between UTHealth and Memorial Hermann Health System, he sees patients who have cognitive, behavioral or mood disorders. The Institute brings together a team of world-class clinicians, researchers and educators whose insights and research findings are transforming the field of neuroscience. Patients from around the world come to the Institute for treatment of rare and common diseases of the brain and spinal cord.

Schulz’s work at the UTHealth Neurocognitive Disorders Center in the Mischer Neuroscience Institute is influencing the treatment and future of Alzheimer’s disease, frontotemporal dementia, Lewy body dementia and other disorders of memory, cognition and behavior. He is collaborating with neuroscientists across UTHealth to develop methods and sophisticated new technologies to treat Alzheimer’s disease and its risk factors at the clinical and cellular level.

If you are interested in transforming neurological care with a gift to UTHealth’s Memory and Neurocognitive Research Fund or by helping establish an Endowed Distinguished University Chair for Dr. Schulz, please contact Brittnee Henry, director of development, at 713-500-3095 or via email at Brittnee.E.Henry@uth.tmc.edu or Kerry A. Lynch, associate director of development, at 713-500-3495 or via email at Kerry.A.Lynch@uth.tmc.edu.

Ways you can support UTHealth’s Memory and Neurocognitive Research Fund

- Endowed Distinguished University Chair - $3,000,000
- Endowed Chair - $1,000,000
- Support clinical trials - $100,000/participant

The Future of Memory Loss Treatments

In the United States, more than 5 million people and their families are living with Alzheimer’s disease, and estimates indicate that a new person develops this feared disease every 66 seconds.

With your support, we can accelerate the development of life-changing treatments and improve the quality of life for patients living with dementia, Alzheimer’s disease and other memory disorders.

Listed below are several additional Alzheimer’s disease clinical trials that UTHealth is in the process of launching:

- Improving Therapies for Alzheimer’s disease
  1. The employment of plasma exchange to treat Alzheimer’s disease by lowering pathologic amyloid proteins in blood to pull them out of the brain.
  2. The testing of two medications that inhibit the enzymes that produce beta-amyloid proteins in Alzheimer’s disease.
  3. The investigation of an antibody against amyloid protein that reduces it in the brains of patients with early Alzheimer’s disease.
  4. The testing of stem cells to treat Alzheimer’s disease.
  5. The investigation of an antibody against Tau protein to reduce it in the brains of patients with several disorders, including Alzheimer’s disease.

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UTHealth's mission is to educate health science professionals, discover and translate advances in the biomedical and social sciences, and model the best practices in clinical care and public health. Paul Schulz, MD and his research partners, Claudio Soto, PhD and Pramod Dash, PhD, are committed to this mission and are breaking down old treatment paradigms about Alzheimer’s disease.

They are using positron emission tomography (PET) agents that bind to beta-amyloid plaques in the brain to diagnose Alzheimer’s with greater specificity and sensitivity. Schulz has been able to either provide patients with the assurance that they do not have Alzheimer’s, or to diagnose them with the disease much sooner than in the past in order to investigate treatments much earlier in the disorder, where they may be more effective.

Amyloid imaging now identifies persons at risk for developing Alzheimer’s 10-20 years before their first symptom. This will allow his group to test the effect of treatments on potentially delaying, or perhaps eventually preventing the disorder. Schulz has developed several clinical trials to advance the research and provide hope to future patients dealing with memory loss.

Alzheimer’s becomes more prevalent as we live longer

Alzheimer’s is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills and eventually the ability to carry out the simplest tasks. Over time, as more brain cells are destroyed, symptoms gradually worsen.

The first symptom that many people developing Alzheimer’s notice is forgetfulness. As the disorder progresses, other symptoms may occur, including difficulty multi-tasking, misplacing items, repeating things, confusion, trouble with organizing and expressing thoughts, mood changes and becoming disoriented or lost in familiar places.

Though people can have Alzheimer’s in their 30s, 40s and 50s, the disease is more common as we get older, doubling in incidence every 5 years, being 1 percent at age 60 and increasing to 32 percent of people at age 85. Estimates vary, but experts suggest that more than 5 million Americans may have Alzheimer’s.

Research shows that cessation of smoking; keeping weight in normal range; avoiding head trauma; and, lowering blood cholesterol, blood sugar and triglycerides can help reduce cognitive decline.

UTHealth is translating leading-edge research into life-changing treatments. UTHealth physicians and researchers, working in the Memorial Hermann Mischer Neuroscience Institute, are engaged in a broad and intense research program focused on the mechanisms, treatments and cures for neurological diseases and injury. They use diverse approaches – molecular, transgenic and electrophysiological techniques – in biomedical studies, translational research, clinical trials and technology development and assessment.

Plasma Exchange - A New Hope for Fighting Alzheimer’s Disease

Alzheimer’s is associated with significant deposits of beta-amyloid proteins in the brain due to an imbalance between production and clearance of these proteins. Amyloid deposition is followed by deposition of a second protein, called Tau, which is followed by an inflammatory response that is believed to lead to cell death. Antibodies against amyloid pull amyloid from brain, but with some significant side effects that limit dosing. Our laboratory partners have discovered that transfusing Alzheimer’s models with the blood of non-Alzheimer’s models lowers blood amyloid, which then pulls amyloid from the brain without the side effects observed in antibody trials. As a result, we are now performing a similar procedure in humans with Alzheimer’s.

Plasma exchange takes blood from a person, spins it down to remove plasma with amyloid, adds sterilized plasma to their own red and white blood cells, and sends a person’s blood back into them without amyloid in their plasma. In addition to lowering blood and hence brain amyloid, this innovative procedure may also lower blood and brain Tau protein and inflammatory molecules, hence potentially tackling multiple neuropathological hallmarks underlying Alzheimer’s.

Similar treatment methods are used every day in the hospital in the form of kidney dialysis or as plasma exchange to lower serum inflammatory molecules in disorders such as Guillain-Barré syndrome, myasthenia gravis, lupus and multiple sclerosis. Because plasma exchange is used every day, it is known to be safe.

While this technique shows promise for Alzheimer’s, it is still experimental and not for everyone. Schulz’s clinic is currently conducting clinical trials to understand how the removal of these harmful proteins can help patients with Alzheimer’s and is looking for qualified candidates to participate. In addition to the diagnosis and treatment of Alzheimer’s, his research team is investigating the risk factors for dementia in order to understand why it develops, including both environmental and genetic factors.
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