NIH RENEWS
ADC’s FUNDING

Our Alzheimer’s Disease Center grant has been renewed for the fifth consecutive time by the National Institutes of Health’s (NIH) National Institute on Aging, representing 28 years of continuous support.

The $9 million award will allow us to continue our research on vascular risk factors and inflammation that help cause the dementia of Alzheimer’s disease. It also will help us develop new research efforts into the genetics and genomics of dementia.

We are a stable and effective team. In 1988, the principal leaders of the first successful NIH grant we received included Dr. Perrie Adams, deputy director; Dr. Myron Weiner, clinical core leader; Doris Svetlik, nurse manager; Dr. Joan Reisch, statistics and data management core leader; and Dr. Charles White III, neuropathology core leader. Twenty-three years later, we are still together and coordinating our clinical and research efforts.

We are fortunate indeed to be joined now by Dr. Munro Cullum, newly appointed as the clinical core leader, and Dr. Mary Quiceno, the new education and information transfer core leader. Dr. Cullum has been an investigator in the center’s clinical core and also serves at UT Southwestern as chief of psychology. He brings great clinical and research experience to the ADC and will lead our efforts to develop existing translational research programs related to vascular risk factors and inflammation and their role in affecting the process of dementia, as well as beginning new programs investigating the genetics and genomics of dementia.

Dr. Quiceno was a resident and fellow in the Department of Neurology and Neurotherapeutics and is an active clinician in the clinical core. This new position will allow her to merge her two main interests of caring for patients and educating the community about dementia.

Dr. Weiner served with distinction as clinical core leader and will now be core leader for Native American studies, providing diagnostic services and conducting research on dementia in the Choctaw Nation of Oklahoma. Our ADC contributes one-half of all of the clinical data.

FORUM SPEAKER TO DISCUSS PROSPECTS FOR NEW THERAPIES

By Rachel Skei Donihoo

Advances in our understanding of the neurobiology of Alzheimer’s disease over the past few decades have led to modestly effective symptomatic treatments, as well as many promising targets for disease-modifying interventions. Nevertheless, no new treatment has been approved since 2003.

In a talk at the Fall Public Forum presented by the Friends of the Alzheimer’s Disease Center on Oct. 25, Dr. Paul Aisen of the University of California, San Diego, will review the history of Alzheimer’s disease research and emphasize recent advances in disease biomarkers and trial design that have renewed optimism about the prospects for major therapeutic advances.

The 7 p.m. lecture, titled “Toward a New Generation of Alzheimer’s Disease Therapeutics,”

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As Alzheimer's disease runs in Dr. Dewayne Nash's family, so the Austin-area family physician always worried that one day it would come for him.

Last year, having long ago vowed to participate in a research study to advance understanding of the disease, Dr. Nash took a neuropsychological examination at the Alzheimer's Disease Center at UT Southwestern Medical Center. He thought he would be part of the control group.

"But as I was taking the test," said Dr. Nash, 61, "I realized I had a problem."

He couldn't keep track of 10 words he was supposed to memorize and repeat back every five minutes. Dr. Nash's difficulties with this task, designed to test short-term memory, led to a finding of mild cognitive impairment. The diagnosis was heartbreakingly, "I had to quit practicing medicine, which was what I loved to do," Dr. Nash said. "I enjoyed going to work every day."

Dr. Nash is now part of the Alzheimer's Disease Neuroimaging Initiative - Phase 2, or ADNI 2. This international study began seven years ago and was designed to find the best ways to measure the effects of Alzheimer's treatments. The goal is to determine eligibility for the study. Those who qualify will receive eight cognitive training sessions, study-related assessments, an electroencephalogram to measure brain waves, and follow-up testing. Call Kristin Martin-Cook, 214-648-9368, or Audette Rackley, 214-905-3007.

While these studies do not require or offer a new treatment, they are the foundation for future research and therapeutic trials.

ADNI 2 (ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE - PHASE 2)

This study builds on the first ADNI studies and will enroll people ages 55 to 90 with no memory problems, mild cognitive impairment and early Alzheimer's disease. Participants will undergo magnetic resonance imaging (MRI), traditional glucose-based positron emission tomography (PET), new amyloid PET scanning to investigate the formation of beta-amyloid plaque formation, and standard neuropsychological and neurological exams. Participants will be compensated for their time. Call Kathy Koch, 214-648-9343.

CORE AND TARC RESEARCH STUDIES

People with mild cognitive impairment, early Alzheimer's disease or frontotemporal dementia are needed for observational studies. The studies usually involve one visit a year for neuropsychological testing, neurological exams, brain imaging and blood sampling. The data collected from these visits are used by many investigators studying the aging brain and disorders of cognitive function. These visits often involve financial compensation. Call Jackie Rabb, 214-648-9376, or Kristin Martin-Cook, 214-648-9368.
NELSON MAULDIN HONORS LATE MOTHER WITH $200,000 GIFT

By Rachel Skei Donihoo

In honor of his beloved mother whose final years were consumed by Alzheimer’s disease, Mr. Mauldin has donated $200,000 to support research at UT Southwestern into the debilitating neurological disorder.

The fund is named for UT Southwestern Medical Foundation, which was given in the form of a charitable gift annuity, will create the Katie Mauldin Fund for Alzheimer’s Disease Research.

Dr. Daniel K. Podolsky, president of UT Southwestern, said, “We are on the brink of several significant developments in the fight against Alzheimer’s disease, and we’re grateful that Nelson Mauldin’s desire to honor his mother by supporting the medical center’s research programs in such a significant way.”

An only child and self-professed “mama’s boy,” Mr. Mauldin became his mother’s caretaker during her seven-year battle with the disease. “She took care of me as a child, so it became my time to take care of her,” said Mr. Mauldin, of Arlington. “She was the love of my life and, as difficult as it was, this experience really allowed me to step up to the plate. Unless you have dealt with Alzheimer’s firsthand, it is impossible to know how overwhelmed and hopeless you can feel. When I read about everything UT Southwestern is doing to find a cure and help others with the disease, it inspired me to donate to the cause and, I hope, help others in the process.”

Born and raised in Dallas, Mr. Mauldin graduated from Crozier Technical High School in 1948 and attended Texas Tech University until 1950. He launched his own electrical manufacturing sales agency in Dallas, which was sold in 1994. After retirement he relocated to Arlington, where he cared for his mother until her death in 1997.

MRS. MAULDIN, an avid gardener, horsewoman and crochet enthusiast, “walked religiously” and remained active all her life, her son said. Mr. Mauldin’s father, Fred, spent his career at Lone Star Gas Co. and died of cancer in 1994.

“This generous gift from Mr. Mauldin supports an area of medical research in which there is great promise and urgency,” said Dr. Kern Wildenthal, president of Southwestern Medical Foundation. “We are pleased that he has chosen to pay tribute to Katie Mauldin in such a valuable way, and we are very grateful for his thoughtfulness and confidence.”

From Physician to Advocate

Continued from page 2

who want to know what to do,” he said. “Alzheimer’s is a disease everyone is scared of. People don’t like to talk about it.”

His participation in the ADNI study is especially important, because it’s unusual to find patients at such an early stage of the disease, said Dr. Roger Rosenberg, director of the Alzheimer’s Disease Center and holder of the Abe (Brunky), Morris and William Zale Distinguished Chair in Neurology. Most people are in denial, feel stigmatized about their potential for Alzheimer’s or ignore their “senior moments.”

“Finding volunteers like Dr. Nash can be difficult, but it’s critical,” Dr. Rosenberg said. “The idea is to identify people as early as possible so they can start finding a treatment.”

Dr. Nash comes to UT Southwestern every few months for blood tests, neuropsychiatric exams and brain imaging. He meets regularly

EXPERIMENTAL BLOOD TEST MAY LEAD TO EARLY DETECTION

By Rachel Skei Donihoo

UT Southwestern scientists have helped develop a novel technology to diagnose Alzheimer’s disease from blood samples long before symptoms appear.

This preliminary technology, which uses synthetic molecules to seek out and identify disease-specific antibodies, also could be used eventually in the development of specific biomarkers for a host of other hard-to-diagnose diseases and conditions, including Parkinson’s and immune system-related diseases like multiple sclerosis and lupus, the researchers predict.

“One of the great challenges in treating patients with Alzheimer’s disease is that once symptoms appear, it’s too late. You can’t un-ring the bell,” said Dr. Dwight German, professor of psychiatry and an author of the paper published in Cell. “If we can find a way to detect the disease in its earliest stages – before cognitive impairment begins – we might be able to stop it in its tracks by developing new treatment strategies.

Researchers in the study hypothesized that there may be numerous antibodies in the blood serum of people diagnosed with Alzheimer’s that are specific to the disease and can serve as a biomarker.

Antigens – substances such as protein from a virus or bacteria that triggers an immune response – traditionally have been necessary for the discovery of antibody biomarkers. It has been difficult previously to identify an antibody (a type of targeted immune molecule) without first knowing the antigen that triggers its production.

This study, however, challenges conventional wisdom and uses synthetic molecules (peptoids) rather than antigens to successfully detect signs of disease in patients’ blood samples. These peptoids have many advantages: They can be modified easily and can be produced quickly in relatively large amounts at lower cost.

The researchers used a library of several thousand peptoids to screen serum samples from mice with multiple sclerosis-like symptoms and from healthy controls.

CANCER DRUG HOLDS PROMISE AS DEMENTIA TREATMENT

By Deborah Wormser

A drug already approved for people with cancer shows early potential as a therapy for a common form of dementia, UT Southwestern Medical Center researchers report.

The drug, called SAHA, or suberoylanilide hydroxamic acid (SAHA), holds promise as a first-generation drug for the prevention and treatment of familial frontotemporal dementia, a progressive, inherited neurodegenerative disease for which there is no treatment, said Dr. Joachim Herz, assistant professor of neuroscience at UT Southwestern and holder of the Thomas O. and Cinda Hicks Family Distinguished Chair in Alzheimer’s Disease Research.

UT Southwestern researchers from the Alzheimer’s Disease Center, the Harold C. Simmons Comprehensive Cancer Center and the Protein Chemistry Technology Center participated in the study.

Because familial FTD patients inherit one working copy of the cell-signalling protein program (GRN) gene and one mutated one, the researchers wanted to identify a drug that would make the working copy of the gene work harder.

In an attempt to move as quickly as possible from basic science to clinical trials, the team established a method to quickly screen 1,200 drugs that already had Food and Drug Administration approval. SAHA emerged as the most active of the chemicals they screened, said lead author Basar Cenik, who works in the laboratories of both Dr. Herz and Dr. Dwight German, associate professor of neuroscience and a Thomas O. Hicks Scholar in Medical Research.

SAHA is in a class of drugs called histone deacetylase inhibitors, and is approved for use in a cancer called cutaneous T-cell lymphoma.

“We found a drug that can overcome the chemical deficiency associated with the condition, and we showed that it works in cells taken from humans with FTD,” Dr. Yu said.

Dr. Dwight German

Dr. Joachim Herz

Dr. Debowmy Nash hopes his blog, www.organicgreendoctor.com, which chronicles his experiences with cognitive impairment and memory loss, encourages people to participate in Alzheimer’s research and to discuss the disease more openly.

Dr. Dwight German
NEW NAME REFLECTS NEW EMPHASIS ON TREATMENTS
By Rachel Skei Donihoo

UT Southwestern’s Department of Neurology and Neurotherapeutics has taken a new name to reflect an expanded role.

“The word ‘neurotherapeutic’ means treatment for neurological disorders,” said Dr. Mark Goldberg, chairman of the department that is now the director of the department that is now the Department of Neurology and Neurotherapeutics.

Research has evolved into a discipline offering an array of treatments to improve symptoms for many conditions, including epilepsy, Parkinson’s disease and multiple sclerosis, said Dr. Mark Goldberg, who became chairman of the Department of Neurology and Neurotherapeutics in 2015. He also directs the Beatrice Marvin Haggerty Center for Research on Brain Injury and Repair in Strokes.

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The department’s research efforts include the National Institutes of Health (NIH)-funded Alzheimer’s Disease Center and the National Multiple Sclerosis Training Center, as well as NIH-supported research in neurochemistry, ALS, risk factors for dementia, spinal muscular atrophy, and disorders of cellular excitability.

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Dr. Goldberg, who holds the Linda and Mitch Hart Distinguished Chair in Neurology, is now the director of the Alzheimer’s Disease Center and holder of the Abe (Brunk), Morris and William Zale Distinguished Chair in Neurology.

“Our goal is to accelerate the process of therapy development by providing leading scientists with well-validated animal models and testing methods,” Dr. Goldberg said. “At the same time, neurological clinicians will have opportunities to bring the most promising treatment approaches to initial trials in human disease quickly.”

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The forum is free to the public, but because seating is limited, attendance should be confirmed by calling UT Southwestern’s Office of Development at 214-648-2344.

“Alzheimer’s disease was described just over 100 years ago as an uncommon devastating dementia affecting people in middle age,” said Dr. Aisen, professor of neurosciences at the University of California, San Diego School of Medicine. “Since then, it has been demonstrated to be an epidemic of enormous proportions, affecting a substantial segment of the aging population.”

“The field of Alzheimer’s disease research seems poised to bring to clinic the next generation of treatments, moving beyond symptomatic benefits to modification of the underlying neurobiology of the disease. Despite the difficult pitfalls of past research, a clear path forward is emerging.”

If you are interested in attending, you can call UT Southwestern’s Office of Development at 214-648-2344.
JOIN THE FRIENDS OF THE ALZHEIMER’S DISEASE CENTER

The Friends of the Alzheimer’s Disease Center raises funds to establish yearly grants for promising researchers who are working to unlock the mysteries of Alzheimer’s disease. In addition, the Friends sponsor public forums each spring and fall to present the latest scientific information on the disease to the general public. We welcome the community to these sessions.

Fully tax-deductible memberships in the Friends begin at $500 per year per individual or couple. To join the Friends, call 214-648-2344 or visit our website at www.utsouthwestern.edu/donatenow. Honorary or memorial gifts are another meaningful way to make contributions toward research that is under way at UT Southwestern.

The Alzheimer’s Disease Center News is published by The University of Texas Southwestern Medical Center. We welcome your comments or suggestions at 214-648-3404 or robin.loveman@utsouthwestern.edu

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KEEPING CONNECTED

Many people wonder what they can do to help couples dealing with Alzheimer’s disease or other memory loss. Often couples feel isolated once they’ve received a diagnosis, says Kristin Martin-Cook, clinical research coordinator at the Alzheimer’s Disease Center. It’s important to keep Alzheimer’s patients engaged while also giving the couple time apart. Some suggestions:

• Set up a regular schedule to meet for a mutually enjoyable activity like having lunch at a favorite place every week or playing cards once a month.
• Schedule joint hair or nail appointments and bring the person along, or offer to take him or her with you to run errands together.
• If the person with dementia isn’t cooking anymore, bring dinner a couple of times a month or share with the new cook of the house a few easy favorite recipes.
• Notice simple repairs that might be needed, and offer to help. Sometimes just climbing a ladder to change a light bulb is a problem for older couples.