



UAB NEUROLOGY

Committed to Shaping the Future

Thank you for your partnership in our vision for the UAB Department of Neurology. 2021 was a busy year, and we have continued our commitment to providing care to the people of Alabama and discovering the treatments and cures of the future.

Despite the ongoing COVID-19 pandemic, UAB Neurology has maintained our “always open” status. We saw more than 50,000 patients at the Kirklin Clinic, both in person and through the new technology of video telemedicine. Our hospital remains the only facility in the state with inpatient beds where neurologists supervise care directly, and the only Alabama hospital with hands-on neurological consultation available 24/7/365. Using new technology, our stroke experts are providing care to patients at 15 other hospitals around the state, and we will continue to expand this in the coming years.

Research remains a top priority, and we have had great success. Our team now includes 24 National Institutes of Health (NIH)-funded investigators who have received more than \$18 million in research funding over the last year—16th among all neurology departments in the United States, and in the top 10 among public universities. Clinical research is also very strong, with more than 170 research studies active or pending.

Your support is helping the Department of Neurology to reach its best and highest purpose, offering first-rate care to thousands of patients and providing hope to countless more with each new discovery. We are grateful for all you do to support the Department. Our clinical and research efforts are greatly enhanced by your generosity. Here are a few of the achievements your support has helped to make possible in 2020:



The University of Alabama at Birmingham

MEMORY

Despite the challenges imposed by the pandemic, the federally funded Exploratory Alzheimer's Disease Research Center, led by Dr. Erik Roberson, had a successful first year in 2021. Focused on understanding the disparities that lead to increased risk for Alzheimer's disease in the Deep South, the Center has been effective in recruiting participants, with a particular emphasis on the Black/African American populations which bear a disproportionate burden of Alzheimer's disease. Dr. David Geldmacher, along with colleagues from the Alzheimer's Disease Center scientific collaborators, reported original research findings related to Deep South health disparities and the challenges of research recruitment among underserved communities in a topical Symposium at the Gerontological Society of America meeting in November 2021. The UAB Alzheimer's disease program continues its contribution to the major collaborative research efforts throughout the US and the world, including the Alzheimer's Clinical Trials Consortium, the Alzheimer's Disease Centers program, the Alzheimer's Disease Neuroimaging Initiative, and the Dominantly Inherited Alzheimer's Network.

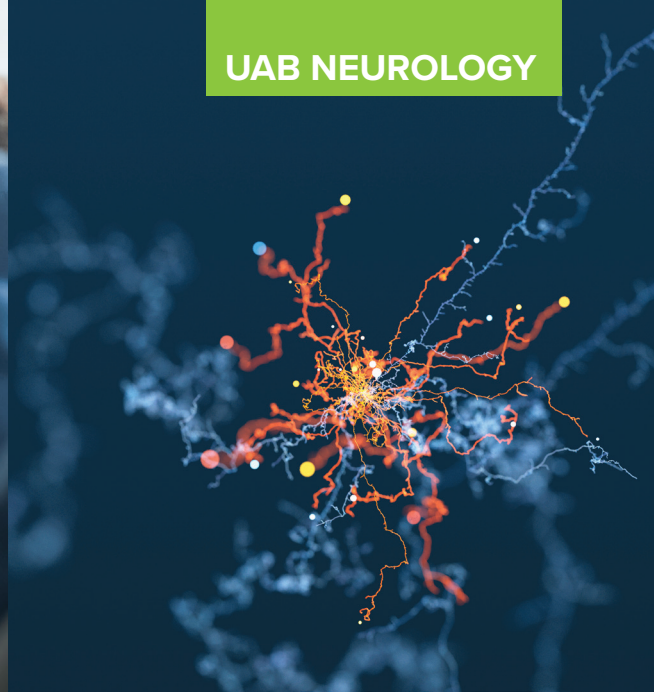
PARKINSON DISEASE AND MOVEMENT DISORDERS

The focus of much of the Parkinson disease research is the NIH-funded Morris K. Udall Center of Excellence in Parkinson's Disease Research. One of 5 such centers in the US, the Alabama Udall Center is examining the question of how the immune system is involved in PD, and how treatments targeting this system might slow or prevent the disease. Over the last year, the Center has completed enrollment of 120 patients and controls into the study, and will soon be able to address the critical questions in this field. In addition, there is important ongoing work in exploring improved methods for deep brain stimulation surgery and new medical treatments.

NEURO-ONCOLOGY

Louis Burton Nabors, III, M.D., has been named the William Austin Brown Endowed Professorship in the O'Neal Comprehensive Cancer Center. Dr. Nabors is a physician-scientist and an active neuro-oncologist specializing in the management of patients with all types of intracranial tumors. He has substantial experience in clinical studies with an active practice in neuro-oncology and serve as the Co-Leader of the Neuro-oncology Program in the O'Neal Comprehensive Cancer Center. He also serves as the ABTC (Adult Brain Tumor Consortium of CTEP) co-Principal Investigator and as UAB PI of the NINDS clinical trial network NeuroNext. He has been the Chair of the National Comprehensive Cancer Network (NCCN) CNS Tumor Guidelines committee for 10 years. Dr. Nabors maintains an active laboratory and translational research program focused on the role of RNA-binding proteins in cancer and advancing basic science observations into meaningful clinical trials for patients.





NEUROMUSCULAR

Our Neuromuscular Disease program, directed by Dr. Erobo Ubogu, has been designated as a Guillain-Barré Syndrome–Chronic Inflammatory Demyelinating Polyneuropathy (GBS-CIDP) Foundation International Center of Excellence. The Division of Neuromuscular Disease houses our American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM)-accredited electrodiagnostic laboratory (with Exemplary status, the highest possible), comprehensive autonomic function testing laboratory (one of 8 in the United States), College of American Pathologists-certified Muscle and Nerve Histopathology laboratory and Muscular Dystrophy Association-funded Care Center that supports our clinical care of inherited and acquired neuromuscular diseases, including Lou Gehrig disease or Amyotrophic Lateral Sclerosis (ALS). Active basic science, translational science and clinical studies funded by the NIH, VA and industry are ongoing to discover novel insights focused on new treatments for chronic neuropathic pain, common and rare peripheral neuropathies, ALS, myasthenia gravis, and muscle inflammation.

STROKE

Alabama has one of the highest rates of stroke in the nation, and the Stroke Division is critical to the health of our region. Our eight board-certified Vascular Neurologists provide around-the-clock access to urgent treatment with the latest technology such as telemedicine to reach underserved parts of Alabama, as well as long-term support for stroke recovery. UAB is a Joint Commission certified Comprehensive Stroke Center and is advancing stroke knowledge and treatment as one of 25 Regional Coordinating Centers for the National Institute of Neurological Disorders and Stroke. Dr. Toby Gropen is the recipient of an NIH grant that aims to implement an innovative trauma system-based model of emergency stroke care throughout Alabama to ensure that every patient has access to the right stroke care as quickly as possible.

EPILEPSY

Epilepsy affects over 53,000 Alabamians. The UAB Epilepsy Center, designated a Level 4 Center, the highest possible, has a key role in providing care to all state residents affected by seizure disorders. Several new important NIH funded studies were implemented in 2021. These include a clinical trial of exercise as a cognitive intervention for memory improvement in patients with idiopathic generalized epilepsy, a clinical trial of an intervention for the management of psychogenic non-epileptic seizures in children and adults, and a trial of a novel approach to treating patients with Lennox Gastaut syndrome in which UAB is partnering with several other major epilepsy centers. We have also started new studies of emotion, cognition, and neuroimaging in patients with seizure disorders. Finally, UAB faculty were instrumental in testing of a cannabis-based treatment for the management of seizures and in the writing and now implementing of the medical cannabis law in AL as part of the Alabama Medical Cannabis Commission.

MS AND NEUROIMMUNOLOGY

The UAB Multiple Sclerosis Center continues to serve as a Comprehensive Center for MS Care certified by the National MS Society. We continue to be part of the Consortium of MS Centers with focus on providing clinical care, furthering innovative research and training future generations of MS neurologists. The UAB-Lakeshore MS Scholar Program successfully funded another young neuroscientists to basic and translational approaches to MS research. In addition, we have successfully recruited and obtained funding for two postgraduate clinical Neuroimmunology/MS Fellows, who will be joining us in July 2022 to start a one year clinical MS training program. Despite the challenges associated with COVID-19 and the changing healthcare environment, we remain committed to continued growth in research supported by grants from federal, nonprofit, industry and philanthropic sources; to expanding the range of clinical care services provided to patients with neuroimmunological and neuro-infectious diseases; and, to training the next generation of neuroimmunologists.

NEUROPSYCHOLOGY

A healthy brain is critical for living a longer and fuller life. As we age, however, there is increasing compromise of neuronal activity that affects functions such as cognition, also making the brain vulnerable to disease. Once pathology-induced decline begins, few therapeutic options are available. Prevention is therefore paramount, and primary care can play a critical role.

In March 2021, the American Heart Association (AHA) published a Scientific Statement, entitled “A Primary Care Agenda for Brain Health, chaired by Dr. Ronald Lazar, director of the UAB McKnight Brain Institute in the Department of Neurology. The 2021 Statement amplified the “Life’s Simple 7” strategy (control of hypertension, reduction of diabetes risk, need for physical activity, etc.), with the inclusion of alcohol consumption, social engagement, hearing, mood (depression) and education. Additionally, new data demonstrate that failure to control risk factors much earlier in the lifespan impacts later life cognitive decline and dementia. Management of these factors and lifestyle behaviors today will, over time, reduce the future incidence of dementia, with significant cost benefit to patients, caregivers, and the healthcare system.

Their first step is to have an advanced practice provider serve as a brain health advocate in the UAB primary-care clinic, who would work with individual patients and family members. Their pilot sites are the UAB Family and Community Medicine clinics at UAB Highlands and in Hoover. The goal is not medical decision-making, but rather to provide culturally tailored information and support to patients, enabling them to make changes in their lifestyles.



FOR MORE INFORMATION

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