

Muhammad Ali Parkinson Center



Although Parkinson's disease is known for motor symptoms such as tremors, rigidity, and shuffling gait, patients also experience difficulties with speaking, swallowing, and cognition. As the disease progresses, these symptoms worsen and can make daily life extremely challenging for patients and their loved ones.

Led by Holly Shill, MD, FAAN, the Muhammad Ali Parkinson Center is committed to improving the quality of life for patients and caregivers at every stage of the disease. As a Parkinson's Foundation Center of Excellence, it provides comprehensive care and support services while pursuing innovative research to better understand and treat the disease. It is also a world leader in deep brain stimulation (DBS) for Parkinson's.

IMPACT OF PHILANTHROPY



25+
ongoing research
studies



1ST
study confirming link
between Parkinson's
and air pollution



53,168
individuals
impacted by Legacy
Care Program

Your support helps us explore new avenues of research.

Barrow clinicians and researchers are expanding movement disorders research to include genetics, cellular and molecular disease mechanisms, environmental risk factors, and treatments with fewer side effects.



RESEARCH FUNDED BY PHILANTHROPY

Parkinson's and Air Pollution

Brittany Krzyzanowski, PhD, of the Racette Laboratory led a groundbreaking study demonstrating a link between air pollution and Parkinson's risk.

Parkinson's and Pesticides

Dr. Krzyzanowski led a study suggesting that pesticides and herbicides could make individuals 25% to 30% more susceptible to developing Parkinson's disease.

Gene Therapy for Parkinson's

Fredric Manfredsson, PhD, is investigating whether a novel gene-therapy approach can reduce the production of harmful molecules that contribute to Parkinson's progression.

Imaging-Based Biomarkers

Ashley Stokes, PhD, is developing imaging biomarkers to help diagnose Parkinson's disease, track its progression, and evaluate the effectiveness of therapies.

Degeneration in Essential Tremor

Dr. Shill is leading a study to determine whether degeneration in the brain's cerebellum contributes to the progression of essential tremor.



You make a difference in the lives of patients and caregivers.

The Center's outreach program includes exercise and recreation classes, educational workshops, and support groups for patients and their loved ones. Its Spanish-language program also reaches individuals in 18 countries.

The Center is further distinguished by the Lonnie and Muhammad Ali Legacy Care Program, which provides comprehensive care to patients with advanced Parkinson's. The Legacy Caregiver Program complements this by providing caregivers with support and resources to avoid burnout. This includes a virtual caregiver training series and respite interventions in three adult day programs.

Supporting patients when they need it most.

When Dwayne McElroy lost his beloved wife, the Legacy Care Program became a critical lifeline in his Parkinson's journey. He was able to access care and vital support services that provided him with a sense of community during an extremely difficult time.

"The specialized care I have received from the doctors has been excellent in meeting my medical and human needs. I cannot say enough good things about this clinic."

Dwayne McElroy



On The Horizon

Research: The Center will collaborate with scientists at major universities on novel studies investigating toxins and stem cell therapies in Parkinson's. Brad Racette, MD, FAAN, Chair of Neurology at Barrow, will be working on a study that investigates environmental risk factors for Lewy body dementia.

Outreach: The Foundation is the presenting organization for Walk the Fight & Run the Distance on February 8, 2025, which supports the Center's community outreach efforts.

World Parkinson Congress: Phoenix has been selected to host the 2026 Congress, with Dr. Shill serving as co-chair of the local organizing committee. This is the largest global meeting of Parkinson's clinicians, researchers, patients, and caregivers.



The mission of Barrow Neurological Foundation is simple: to be the catalyst of our donors' passion for transformation by providing the resources for Barrow Neurological Institute to achieve its mission of saving human lives through innovative treatment, groundbreaking research, and educating the next generation of the world's leading neuroscience specialists.