

Alzheimer's and Memory Disorders Program



ALZHEIMER'S DISEASE has a profound and devastating impact on both patients and their loved ones. At first, those diagnosed with Alzheimer's may forget details such as important dates, events, and directions to familiar places. As the disease progresses, they can lose their sense of time and place and may experience drastic changes in mood or personality. The most difficult part of Alzheimer's comes when a loved one no longer remembers their spouse of 50 years or their children and grandchildren. They are still there physically, but they are far from the person they used to be.

The Alzheimer's and Memory Disorders Program at Barrow Neurological Institute, led by Anna D. Burke, MD, is committed to providing comprehensive clinical care for patients with memory disorders. It goes well beyond the often-seen "diagnose and adios" approach to memory disorders, offering wraparound services for patients and critical support for their loved ones. While the memory disorder specialists at Barrow are caring for patients today, they are also conducting groundbreaking research to find the treatments of tomorrow.



13

active
clinical trials



1,080

outpatient
clinic visits



2,352

patient and caregiver
lives impacted
through outreach



Lewy Body Dementia
Association Research
Center of Excellence

BARROW NEUROLOGICAL INSTITUTE BY THE NUMBERS



CLINICAL IMPACT

91,800+

total number of
patient visits

20,900+

telemedicine visits

9,200+

brain and spine surgeries



GLOBAL IMPACT

78

international research
fellows and visiting scholars

RESEARCH ADVANCEMENTS

The Program has recently expanded clinical trials to include studies on both Alzheimer's disease and related dementias. It currently has 13 active clinical trials with 12 more pending.

- **Frontotemporal dementia (FTD):** FTD is characterized by neurodegeneration in the brain's frontal and temporal lobes, leading to deterioration in behavior and personality and difficulty with language. Mutations in the progranulin (GRN) gene have been linked to the familial form of FTD. The team is currently conducting a clinical trial that investigates a treatment for FTD patients with the GRN gene mutation.
- **Down syndrome with Alzheimer's:** Dr. Burke and Marwan Sabbagh, MD, were both investigators in the first-ever study of an anti-Abeta vaccine for people living with Down syndrome. Initial results, which were published in the prestigious journal *JAMA Neurology*, demonstrated that the vaccine resulted in an anti-Abeta immune response and was safe and well-tolerated in all participants. The landmark study has the potential to slow the development of Alzheimer's in those with Down syndrome, which in turn, could provide treatment insight for the general Alzheimer's population.
- **Alzheimer's disease:** Dr. Sabbagh is working on two studies that focus on repurposing the FDA-approved drug Revlimid to treat mild cognitive impairment, which is often a precursor for Alzheimer's. He is also working on a study that investigates the use of a multiple sclerosis drug to slow down neurodegeneration in Alzheimer's.
- **Brain health:** Yonas E. Geda, MD, focuses on lifestyle changes that can prevent the onset of dementia. Dr. Geda received the 2022 Alzheimer Award from the *Journal of Alzheimer's Disease* for a paper he co-authored that demonstrates the impact of physical activity on cognitive changes in older adults.

PROGRAM ACCOMPLISHMENTS

The memory disorders team brings comfort and dignity to those suffering from dementia and supports their loved ones through a variety of outreach programs. Highlights from the past year include:

- **Spring Symposium:** This symposium offered an opportunity to learn more about brain health, specifically how diet, activity level, and mental health impact cognition. The Spring Symposium was open to anyone interested in learning about brain health.

- **In-person Memory Cafés:** The Program re-implemented monthly in-person Memory Cafés in summer 2022. During these sessions, participants gather first as a large group and then separate into breakout groups for care partners and patients. The Program will continue to hold monthly virtual Memory Cafés, as well as monthly FTD and Lewy body dementia support groups.
- **My Dementia Journey Workshop:** This new, four-part workshop series covers topics such as dementia education, nutrition for brain health, speech pathology, and long-term care planning.
- **Tool kits:** The Program introduced “Navigating Your Path” tool kits for new dementia patients and their families. These kits serve as a valuable resource on topics such as advance directives, care partner self-care, and dementia care.
- **Community outreach:** The outreach support team began an in-person outreach campaign, representing the Program at care partner educational events for Huger Mercy Living Center, Hospice of the Valley, and more.

In July 2022, the Program welcomed behavioral neurologist Parunyou Julayanont, MD, who specializes in the behavioral neurology of dementia and the interface between behavioral neurology and movement disorders.

ON THE HORIZON

While the aging population at risk for developing dementia has increased significantly in recent years, there are still relatively few dementia specialists. Thanks to a generous donation, Barrow has created the Dan Cracchiolo and Pam Grant Behavioral Neurology and Neuropsychiatry Fellowship to train the next generation of leading dementia specialists.

David Medina, PhD, is investigating the development of a novel gene-based therapy for Alzheimer’s that uses a specific signaling pathway as a means of neuroprotection. Dr. Medina’s expertise in neurodegenerative diseases, combined with the gene therapy expertise of Frederic Manfredsson, PhD, will allow Barrow to be the first institute to explore the role of this novel pathway in stopping the progression of Alzheimer’s. A \$350,000 challenge grant has been set up to fund this and other pilot projects, which means all gifts up to \$350,000 will be matched, doubling the impact of each donation.

BARROW NEUROLOGICAL INSTITUTE BY THE NUMBERS



RESEARCH

397

active research studies

791

patients enrolled in clinical trials

\$14 MILLION

in federal research grant support



DONOR IMPACT

\$20 MILLION

total distributed to Barrow Neurological Institute, including:

\$3.5 MILLION

designated to specific centers/programs

\$15.4 MILLION

for basic, clinical, and translational research

\$1.5 MILLION

in endowments



The Alzheimer's and Memory Disorders Program cares for both patients and families while searching for new treatments and cures.

THANK YOU FOR YOUR SUPPORT

We cannot thank you enough for the support you have given to the Alzheimer's and Memory Disorders Program. Your generosity has allowed us to build a program unlike any other in the country and provide wraparound support for care partners as they care for their loved ones with dementia.

Our incredible outreach and patient support team, which is 100% funded by philanthropy, goes above and beyond to meet the needs of both patients and their care partners. While providing compassionate patient care, we are also working diligently on conducting groundbreaking research for the treatments of tomorrow. This would not be possible without your support. On behalf of the entire Alzheimer's and Memory Disorders team, thank you for your generosity and dedication.

With gratitude,

Anna D. Burke, MD
Karsten Solheim Chair for Dementia
Director of the Alzheimer's and Memory Disorders Division
Director of Neuropsychiatry
Department of Neurology, Barrow Neurological Institute

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 by educating the next generation of the world's leading neuroclinicians.

Barrow
Neurological Foundation

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