

Mesulam Institute for Cognitive Neurology and Alzheimer's Disease



MESULAM INSTITUTE FOR COGNITIVE NEUROLOGY AND ALZHEIMER'S DISEASE

Established in 1994, the Mesulam Institute for Cognitive Neurology and Alzheimer's Disease is driven by two interrelated missions. Our first mission is to care for patients with neurological diseases that undermine memory, language, and behavior. The second is to explore the biological foundations of these diseases and to clarify the principles that link brain circuits to mental functions.

Our institute, led by internationally recognized scientist Robert Vassar, PhD, has the coveted status of being officially recognized and supported by both the National Institutes of Health (NIH) and the state of Illinois. During a competitive review of our institute by the NIH, we received the highest possible rating from a national panel of peer reviewers. At Northwestern University, the Mesulam Institute represents more than 50 core and affiliated faculty members from 14 departments on the Chicago and Evanston campuses. Through our leadership and daily efforts, we have honed a superb reputation across the Chicago area and beyond for our clinical diagnoses, care, and supportive services.

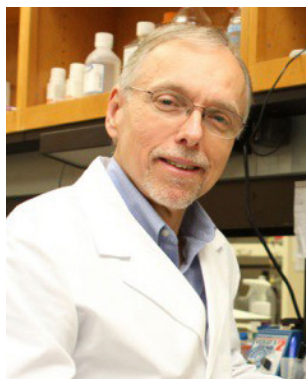
In 2025, Northwestern Trustee Julie Uihlein made a visionary gift establishing the Kathryn Aring Piper Center for Frontotemporal Cognitive Disorders at the Mesulam Institute. The center honors faculty experts Drs. Sandra Weintraub and M. Marsel Mesulam and also elevated the Mesulam Institute from its previous status as a center.

Mesulam Institute scientists are at the cutting edge of research into the causes and treatments of Alzheimer's disease and related dementias. Our faculty members have authored numerous scientific publications that are among the most frequently cited in the world. Mesulam Institute faculty members also serve in leadership positions in state, national, and international organizations in the fields of Alzheimer's disease, primary progressive aphasia, frontotemporal dementia, and related disorders.

The Mesulam Institute is a leading academic hub for cellular and molecular studies of Alzheimer's disease, and our scientists have made pivotal discoveries related to amyloid and tau, the two major proteins affecting the disease. Our ultimate mission, of course, is to ensure that patients become the beneficiaries of all of our related advances.

Below is a sample of the fundamental questions being addressed by the clinicians and researchers affiliated with our world-class institute.

- How much forgetfulness is part of aging, and when does it become a sign of disease?
- What are the secrets of successful brain aging?
- How do the 20 billion nerve cells of the human brain transform daily experiences into memories and thoughts into words?
- What causes neurodegenerative diseases, what are their genetic implications, and how can they be treated?
- Can Alzheimer's disease be prevented by removing amyloid from the brain?
- What is the pathological relationship between amyloid and tau in Alzheimer's disease, and is there a way to therapeutically interfere with this relationship?
- Is there a safe way to therapeutically inhibit the BACE1 enzyme that makes amyloid?
- What are the biomarkers that predict who may develop Alzheimer's disease?
- What is the role of the gut microbiome in neurodegenerative disease?



“The mission of the Mesulam Institute is to conduct cutting-edge research on the devastating neurodegenerative disorders that cause dementia and to ultimately offer our patients and their families personalized care that addresses the symptoms as well as the underlying disease.”

Robert Vassar, PhD, director of the Mesulam Institute and Davee Professor of Alzheimer Research



Kathryn Aring Piper Center for Frontotemporal Cognitive Disorders

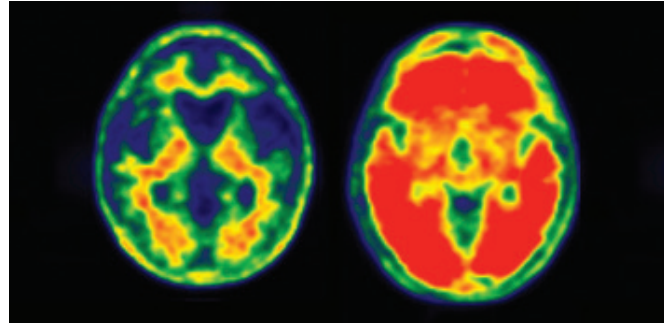
The **Kathryn Aring Piper Center for Frontotemporal Cognitive Disorders** conducts research, facilitates medical education and training, and offers patient and family programming and services, with a preference for research and treatment of a collection of difficult to diagnose orphan diseases collectively referred to as frontotemporal disorders (FTD), including tauopathy, primary progressive apraxia of speech, and directly allied conditions.

Neurobehavior and Memory Clinic

Staffed by neurologists, psychiatrists, geriatricians, neuropsychologists, social workers, and speech therapists, our **Neurobehavior and Memory Clinic** offers the latest advances in early detection and comprehensive treatments for Alzheimer's disease, primary progressive aphasia, frontotemporal dementia, and many other brain diseases that undermine mental functions and complex behaviors. Precise diagnosis is essential for discovering reversible causes, for addressing contributing factors such as sleep disturbances or depression, prescribing proper medication, facilitating targeted education, initiating psychosocial assistance, and providing access to suitable trials with experimental drugs.

Quality of Life Initiatives

Dementias impact the entire family. They also come in bewildering varieties, each with a different profile of spared and impaired functions. The Mesulam Institute has developed personalized, non-pharmacologic interventions that have received national media coverage and are being emulated around the country. Our **Buddy Program** invites individuals living with an early-stage dementia to mentor a first-year medical student so that the student can gain a deeper understanding of the lived experience of these types of diagnoses while also developing a companionable relationship. **PPA Tele-Savvy** offers a virtual seven-week psychoeducation series for care partners



addressing the unique care needs of those diagnosed with primary progressive aphasia (PPA). Three virtual care partner support groups are offered monthly for those caring for individuals with PPA, frontotemporal disorder (FTD), or a younger-onset dementia (those diagnosed under age 65). **SEED (Support and Education for Early Dementia)** is an eight-week in-person support and education for early dementia workshop series for care partners and individuals navigating a new diagnosis.

SuperAging Program and Prevention of Alzheimer's Disease

The emphasis on Alzheimer's disease gives aging a bad reputation by triggering the understandable fear that all aging may eventually lead to dementia. The groundbreaking **Mesulam Institute SuperAging Program** focuses on persons above the age of 80 who have exceptional preservation of memory function. Quantitative experiments with computerized brain imaging methods have shown that these persons are also protected from age-related brain shrinkage. The goal now is to identify the genetic and lifestyle factors that promote super-aging. These factors may have important implications for preventing age-related memory decline and Alzheimer's disease.

Primary Progressive Aphasia and the Biology of Language

In contrast to typical Alzheimer's disease in which memory loss is a major feature, PPA interferes with the ability to find, use, spell, and understand words. The left side of the human brain is dominant for language function. Brain damage in PPA starts on the left side, leaving the right side intact for many years. The Mesulam Institute is a national referral center for PPA, a disease first identified by founder Dr. M. Marsel Mesulam, MD. Longitudinal research projects funded by the NIH involve the participation of patients and families from 32 states. We initiated an innovative internet-based speech therapy program that can be joined by patients in their homes wherever they live in the US. The PPA research program has led to entirely new insights into the biology of language functions, including the neural circuitry that enables word finding and comprehension.



Training and Education

The Mesulam Institute provides accredited training programs in Neurology, Psychiatry, Neuroscience, Neuropsychology, and Social Work. These programs allow us to train the next generation of clinicians and scientists in a unique multidisciplinary setting.

A Call for Partnership

At the Mesulam Institute for Cognitive Neurology and Alzheimer's Disease, we recognize that our contributions to cognitive care, research, and education have been strengthened by donors who have entrusted us with their philanthropic support. We invite our longtime donors and friends to join us in the continued success of the Mesulam Institute through gifts of outright support and endowment.



Through Northwestern Medicine, we intend to create a national epicenter for healthcare, education, research, community service, and advocacy.

For more information about giving to the Mesulam Institute, please contact:

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To learn more about the Mesulam Institute, visit brain.northwestern.edu