

Stony Brook University Neurosciences Institute

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For more information, or to make a gift, please contact:

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Stony Brook Neurosciences Institute



Fact Sheet

A Leader in Diagnosing and Treating Brain, Neurological and Psychiatric Disorders

Brain and neurological disorders are the third-leading cause of death among Suffolk County residents and a leading cause of adult disability. And sadly, suicide is the leading cause of premature death in Suffolk County. Fortunately for Long Islanders, Stony Brook University Neurosciences Institute is the regional leader in the diagnosis and treatment of a full range of brain, neurological and psychiatric disorders in adults and children. This includes, but is not limited to: stroke, aneurysms, spine disorders, brain tumors, traumatic spine and brain injuries, birth defects, autism, epilepsy, sleep disorders, multiple sclerosis, Alzheimer's disease, depression, anxiety and Parkinson's disease. As a tertiary care center, we also serve as the "go to" medical facility for community physicians and other specialists in the region who have complicated cases and seek advanced care for their patients.

Renowned Specialists, Sophisticated Technology

The Neurosciences Institute brings the expertise of renowned specialists together with the use of sophisticated technology to deliver high-quality, disease-specific, comprehensive around-the-clock care for patients, while providing peace of mind to their families. This care includes access to a variety of resources and therapies to assist with rehabilitation and reintegration into normal living during and after treatment.

More Than 70 Research Laboratories

The Neurosciences Institute is home to more than 70 research laboratories with over 230 faculty dedicated to the study of various neurological and psychiatric disorders and diseases. At our state-of-the-art imaging suite, pioneering research is being conducted on abnormalities throughout the head and body. These studies advance neuro-oncology treatment and allow better understanding of the neurological causes of psychiatric diseases and the underlying mechanisms of multiple sclerosis, stroke, autism, epilepsy and Parkinson's disease. Our physician-scientists are also involved in more than 120 clinical trials, which means our patients can access cutting edge diagnostic tools and medical treatments before they are widely available.

Training the Next Generation

As part of an academic medical center and teaching hospital, Stony Brook University Neurosciences Institute provides challenging yet supportive educational experiences that prepare graduates to practice in a variety of clinical and academic settings. Our residency programs focus on psychiatry, neurology and pediatric neurology. We also offer fellowship programs in child psychiatry, geriatric psychiatry, psychosomatic medicine, clinical neurophysiology, stroke and multiple sclerosis/neuroimmunology.

The Facts

- Stony Brook University Hospital is the largest Regional Trauma Center and has the only Comprehensive Psychiatric Emergency Program in Suffolk and Nassau counties.
- Our specialty centers and programs include:
 - Alzheimer's Disease Assistance Center
 - Center for Affective Neuroscience of Depression and Anxiety (CANDA)
 - Center for Autism Spectrum Disorders
 - Cerebrovascular and Stroke Center
 - Comprehensive Psychiatric and Integrated Care Services
 - Epilepsy Center
 - Lourie Center for Pediatric Multiple Sclerosis
 - Mind-Body Clinical Research Center
 - Multiple Sclerosis Adult Comprehensive Care Center
 - Neuromuscular Disease and Christopher Pendergast ALS Center of Excellence
 - Neuro-Oncology Center
 - Pediatric Neurosciences Center
 - Skull Base Surgery Center
 - Sleep Disorders Center
 - Spine Center
- Progressive research in a variety of neurological, cerebrovascular and psychiatric disorders and diseases
- Pioneering research on abnormalities throughout the head and body

Meeting of the Minds Annual Symposium

Each autumn, the Neurosciences Institute hosts a "Meeting of the Minds" symposium. It features lectures by several renowned neuroscience experts and celebrates the ongoing achievements of Stony Brook faculty in the field that, in turn, lead to "real world" applications that ultimately benefit patients. The symposium is open to the public and attracts physicians, nurses, researchers, students and other healthcare professionals with an interest in the field of neurosciences.

One-of-a-Kind Programs

The Neurosciences Institute also features several programs that are unique to our region:

- Alzheimer's Disease Assistance Center of Long Island — the only Center of Excellence on Long Island and one of only nine sponsored by the New York State Department of Health. The center provides diagnostic evaluations and clinical management as well as education, support and referral resources for the patient, family and caregiver.
- Cerebrovascular and Stroke Center — the only center in Suffolk County offering endovascular treatment for stroke and brain aneurysms, 24/7.
- Comprehensive Psychiatric Emergency Program (CPEP) — the only one in the region and one of only 21 licensed by the State of New York. CPEP provides an organized system for responding to psychiatric emergencies for evaluation, intervention, treatment and referral for the residents of Suffolk County who have demonstrated a need for emergency services. Psychiatric evaluation and referrals are provided by a team of psychiatrists, psychiatric residents, nurse practitioners, registered nurses and social workers 24 hours a day, 7 days a week.
- Lourie Center for Pediatric Multiple Sclerosis (MS) — one of only six in the nation designated as a center of excellence by the National MS Society.
- Christopher Pendergast ALS Comprehensive Care Center of Excellence — the only ALS Association-certified center on Long Island.

Advancing Neuroscience Through Research

Many of our researchers have been recognized through the National Institutes of Health's most rigorous and challenging process for multi-million dollar study awards. Some of the hundreds of research projects currently underway at Stony Brook University Neurosciences Institute include:

- Testing the combined effect of treatment with melatonin and donepezil on improving sleep, memory and daytime behaviors in children with autism spectrum disorders
- Cognitive decline during the aging process
- Use of brain imaging to predict responsiveness to antidepressant therapy prior to treatment and to uncover neurobiological causes of cognitive dysfunction in MS
- Bipolar and unipolar depression — Determine the mechanisms of action of two commonly used treatments

- Parkinson's disease — its cognitive aspects, underlying mechanisms and deep brain stimulation
- Biological underpinnings of major depressive disorder and its treatment as well as the underlying mechanisms of depression
- Cognitive function and dysfunction
- Alzheimer's disease — utilizing a unique protein to provide insights into the pathogenesis of dementia
- Translational research and development of new endovascular devices as well as improvements in efficiency of currently available endovascular devices for brain aneurysm treatment
- Mind-body and behavioral problems — underlying bio-psycho-social risk and resiliency factors
- Developing new and more precise tests of the specific behavioral, cognitive and neural mechanisms that lead to social challenges in autism spectrum disorders, and evaluating new interventions for these social challenges that more precisely target specific underlying mechanisms

Designations, Honors and Awards

Some of the ways in which the specialty centers and programs, physicians and researchers within the Neurosciences Institute have been recognized include:

- Primary Stroke Center designation from The Joint Commission and New York State Department of Health
- Gold Plus Achievement Award from the American Stroke Association for the "Get with the Guidelines®" Stroke Program, with the added distinction of "Target Stroke Award"
- *New York Magazine's* "Best Doctors," featuring Stony Brook physicians from neurosurgery and neurology
- America's Top Doctors® (a peer-reviewed list published by nationally respected research and information company, Castle Connolly Ltd.) and Best Doctors® (a peer-reviewed list published by global health reference company, Best Doctors, Inc.) featuring Stony Brook physicians from neurosurgery, neurology and psychiatry
- *U.S. News and World Report* Best Global Universities ranking of Stony Brook's psychiatry and psychology programs as among the top 100 in the world

Our Mission

We continuously seek to enhance and facilitate Stony Brook Medicine's contributions to the understanding of nervous systems disorders through clinical care, research and education. On a daily basis, this means:

- Providing 24/7 world-class clinical care
- Promoting interdisciplinary research integration that contributes to the development of new diagnostic tests and more powerful therapies needed worldwide and advances a fundamental understanding of ourselves and our minds
- Training the neuro-clinicians and neuroscientists of tomorrow

Our Vision

We strive to be the first choice of patients and their families for neurological and psychiatric healthcare on Long Island. To accomplish this, we must:

- Lead regional prevention efforts
- Grow our research programs in brain health
- Continue to train the next generation of specialists and researchers

Advancement

We continue to enhance our clinical facilities to provide a patient-and family-centered environment and build state-of-the-art clinical and basic research facilities. Patient referrals from the medical community and the generosity of our donors will help make the following possible:

- Further enhance our faculty infrastructure through targeted recruitment of physicians and researchers
- Develop additional clinical programs and centers across neurosurgery, neurology and psychiatry
- Acquire additional advanced diagnostic and therapeutic equipment
- Enhance key research and teaching capabilities

Your financial support also helps supplement the rising costs of various research projects and studies that are not funded by other sources.