

## Stony Brook University Neurosciences Institute

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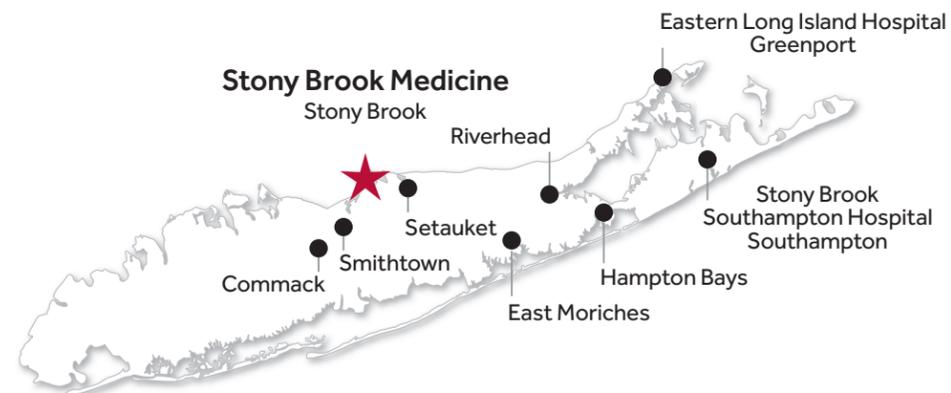
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### Locations throughout Suffolk County



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

Office of Advancement at (631) 444-2899 or visit [neuro.stonybrookmedicine.edu](http://neuro.stonybrookmedicine.edu)



## 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 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 everyday life 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, the 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, neuropsychology, psychosomatic medicine, clinical neurophysiology, stroke and multiple sclerosis/neuroimmunology.

## The Facts

- Stony Brook University Hospital is Suffolk County's only adult and pediatric Level 1 Trauma Center.
- Our specialty centers and programs include:
  - Center for Affective Neuroscience of Depression and Anxiety (CANDA)
  - Center for Autism Spectrum Disorders
  - Center of Excellence for Alzheimer's Disease
  - Cerebrovascular and Comprehensive Stroke Center
  - Comprehensive Epilepsy Center
  - Mind-Body Clinical Research Center
  - Movement Disorders Center
  - Multiple Sclerosis Comprehensive Care Center and Lourie Center for Pediatric Multiple Sclerosis
  - Neuromuscular Disease and Christopher Pendergast ALS Center of Excellence
  - Neuro-Oncology Center
  - Neuropsychology Services
  - Pediatric Neurosciences Center
  - Psychiatric and Integrated Care Services
  - Psychiatry Wellness Service
  - Skull Base Surgery Center
  - Sleep Disorders Center
  - Spine Center
- Progressive research on a variety of neurological and psychiatric disorders and diseases

## 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

- Center of Excellence for Alzheimer's Disease — the only one on Long Island and one of only 10 designated and funded centers by New York State. The center provides education for healthcare practitioners as well as diagnostic evaluations, clinical management, support and referral resources for patients and their caregivers.

- Cerebrovascular and Stroke Center — the first and only Joint Commission certified comprehensive stroke center in Suffolk County; offers endovascular treatment for stroke and brain aneurysms, 24/7.
- Comprehensive Psychiatric Emergency Program (CPEP) — the only one in the region and one of only 22 in New York. CPEP provides an organized system for responding to psychiatric emergencies for evaluation, intervention, treatment and referrals. Services are provided by a team 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.
- Movement Disorders Center — the only one in Suffolk County to offer deep brain stimulation and a Huntington's disease clinic.
- Neurocritical Care Unit — the largest in Suffolk County. The unit allows the highest level of care for patients being treated for serious neurological disorders.
- 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 process for multimillion-dollar study awards. Some of the hundreds of research projects underway include:

- Translational research and development of new endovascular devices as well as improvements in efficiency of devices for brain aneurysm treatment
- Testing a new candidate drug treatment to reduce brain damage after stroke
- Testing the combined effect of treatment with melatonin and donepezil on improving sleep, memory and daytime behaviors in children with autism spectrum disorders
- Developing better understandings of the neural mechanisms underlying autism spectrum disorders, and translating these insights into new interventions
- Developmental precursors of cognitive changes in normal aging, mild cognitive impairment and dementia, and long-term cognitive and psychosocial consequences of treatment for cancer.

- Use of brain imaging to predict responsiveness to antidepressant therapy prior to treatment and determine neurobiological correlates of treatment response
- Bipolar and unipolar depression — determining the mechanisms of action of two commonly used treatments
- Alzheimer's disease — use of PET imaging to better understand the cholinergic neuron system's role in memory loss
- Mind-body and behavioral problems — underlying bio-psycho-social risk and resiliency factors
- Surface electrocorticography and stimulation to analyze and treat severe brain injury
- Multi-centered, clinical trials of novel treatments for glioblastoma
- Parkinson's disease — mechanism and biologic underpinnings of visual hallucinations in Parkinson's disease using EEG

## Designations, Honors and Awards

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

- Comprehensive Stroke Center certification by The Joint Commission, and New York State Department of Health Designated Stroke Center
- Gold Plus Achievement Award from the American Stroke Association for the "Get With The Guidelines®" Stroke Program, with the added distinction of "Target Stroke Honor Roll"
- Level 4 Comprehensive Epilepsy Center designation from the National Association of Epilepsy Centers
- New York Magazine's "Best Doctors," featuring Stony Brook physicians from Neurosurgery and Neurology
- America's Top Doctors® and Best Doctors® 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 and national ranking of Neurology and Neurosurgery as high performing

## 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 better diagnostic tests and therapies, and also 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 disease prevention efforts
- Grow research and clinical programs
- Increase the availability and utility of our clinical and research capabilities to our network partners across Suffolk County

## 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. The generosity of our donors will help make the following possible:

- Further enhance our faculty 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.