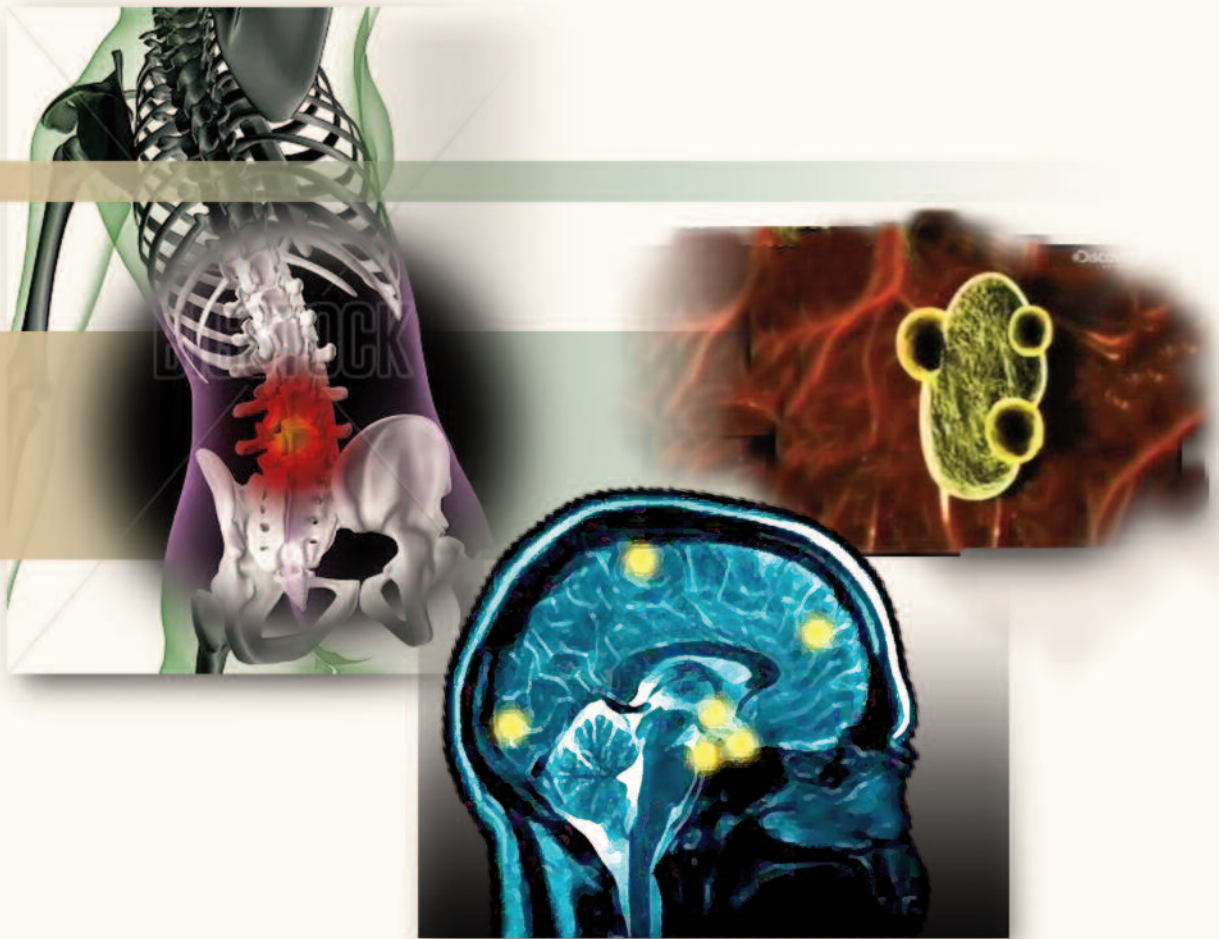


# Progressive Neuroscience

A publication for physicians produced by the **Institute for Neurosciences** at Winthrop-University Hospital



- Non-Surgical Treatment for Low Back Pain
- Managing a Rare Intracranial Mycotic Aneurysm
- Antiepileptic Clinical Trials Expand Treatment Options





Mark M. Stecker, MD, PhD



Michael H. Brisman, MD



Malcolm H. Gottesman, MD

## To Our Colleagues:

Circa 500 BC, the Greek philosopher, Heraclitus, said, “*There is nothing permanent except change.*” Today, those words still ring true — especially when describing the current state of healthcare, with its ongoing, rapid and monumental changes.

Although the use of innovative techniques and technology is part of our mission to provide world-class care, neurologists, neurosurgeons and other providers in Winthrop-University Hospital’s **Department of Neuroscience** remain aware that injury to the nervous system can have a profound and devastating impact on the lives of patients and their families. Therefore, we focus on maintaining the delicate balance between high-tech and hands-on personalized treatment tailored to meet each patient’s distinct needs.

This issue of *Progressive Neuroscience* — which reflects the wide range of issues that affect our patients’ well-being — includes:

- Strategies to prevent seizure-related injury
- Wernicke’s encephalopathy after bariatric surgery
- Non-surgical management of low back pain
- Dealing with intracranial mycotic aneurysms
- Challenging brain tumors found in children
- Pharmacological advances in epilepsy management

Our resolve to provide exceptional patient-centered care and partner with every referring clinician can only benefit the patients you refer to us. We continue to consider it a privilege to treat your patients and value our ongoing collaboration in their care.

Mark M. Stecker, MD, PhD  
Chairman  
Department of Neuroscience

Michael H. Brisman, MD  
Chief  
Division of Neurosurgery  
Co-Director  
Institute for Neurosciences

Malcolm H. Gottesman, MD  
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**David E. Friedman, MD**

Director, Epilepsy Program  
516.663.4965



Dr. David Friedman is Board Certified in Psychiatry, Neurology and Neurophysiology with added competency in Epilepsy Monitoring. Prior to joining Winthrop, he served as Medical Director of the

Epilepsy Clinic at Baylor College of Medicine and the Epilepsy Monitoring Unit at St. Luke’s Episcopal Hospital in Houston, Texas. His postgraduate training includes a Fellowship in Clinical Epilepsy at Columbia University Medical Center, where he also completed a neurology residency. He earned his medical degree from the Sackler School of Medicine – New York State/American Program at Tel Aviv University in Israel. Focusing on epilepsy, Dr. Friedman was a principal and co-investigator in many research projects conducted at Baylor College of Medicine, and is also involved in neurology research at Winthrop. He has published in peer-reviewed journals and has co-authored book chapters, including “Extraoperative Use of Subdural Electrodes” in *Clinical Brain Mapping*.

**John A Grant, MD**

Pediatric Neurosurgeon  
516.255.9031



Dr. John Grant, a Board Certified neurosurgeon, specializes in pediatric neurosurgery, and has an interest in vascular neurosurgery, as well as epilepsy surgery. His postgraduate training includes a Fellowship in

Pediatric Neurosurgery at Children’s Memorial Hospital in Chicago and a neurosurgery residency at the Neurological Institute of New York at Columbia University. Dr. Grant completed general surgery internships in Dublin and at Johns Hopkins Hospital in Baltimore. He earned his medical degree from the Medical School of the Royal College of Surgeons in Ireland, where he was an Arthur Jacob Scholar. Dr. Grant served as Professor and Chairman of the Department of Neurosurgery at the University of Kansas

Medical Center’s School of Medicine from 2004 to 2011. He received the inaugural A. Todd Davis Outstanding Physician Award at Children’s Memorial Hospital. Dr. Grant has written on pediatric and congenital neurosurgery, as well as the history of neurosurgery and head trauma. He has been a member of the editorial board of *Pediatric Neurosurgery* since 2006 and has presented widely at international professional meetings. Dr. Grant visits Haiti regularly where he has a long-term commitment to caring for children with hydrocephalus and congenital malformations.

**Edward S. Rubin, MD**

Director, Chronic Pain Medicine  
516.492.3100



Dr. Edward Rubin specializes in the treatment of chronic pain of the low back and neck, and muscle pain related to sports injuries. He collaborates with neurosurgeons and orthopaedic surgeons to

manage joint and spine pain. Using the latest research to tailor each treatment plan, he provides a wide range of treatment modalities, including noninvasive laser therapy, medication management and advanced interventional techniques. Dr. Rubin is Board Certified in Anesthesiology. His postgraduate training includes a Fellowship in Pain Medicine at Weill Cornell Medical College. He also trained at Columbia University, the Hospital for Special Surgery and Memorial Sloan-Kettering Cancer Center. Dr. Rubin completed a residency in anesthesiology at New York Presbyterian Hospital at the Weill Cornell campus and received his medical degree from St. George’s University School of Medicine in Grenada. Actively interested in research, he has a Certificate in Clinical Investigation from Cornell Medical College and is participating in an ongoing study involving the use of lasers in the treatment of pain.

**Amit M. Shelat, DO**

Neurologist  
516.663.4525



Dr. Amit Shelat, the Neurohospitalist for Winthrop’s Department of Neuroscience, is in charge of the Neurology Inpatient Consultation Service. He is Board Certified in Neurology by the American Board

of Psychiatry and Neurology and the American Osteopathic Board of Neurology and Psychiatry. His postgraduate training includes a residency in neurology at the Albert Einstein College of Medicine. He also completed an internship in internal medicine at the North Shore-LIJ Health System. He earned his medical doctorate at the New York College of Osteopathic Medicine. During his training, Dr. Shelat received the national Neurology Residents’ Award from the Angioma Alliance for work related to cavernous malformations, and the Clinical Science Research Prize from the North Shore-LIJ Health System. He has also been recognized by the American College of Physicians and the Medical Society of the State of New York for excellence in clinical science research.

**Shicong Ye, MD**

Neurologist  
516.663.4525



Dr. Shicong Ye specializes in evaluating and treating patients with epilepsy. He has a special interest in treating refractory seizure patients with vagal nerve stimulation and surgery. Dr. Ye is Board

Certified in Neurology. His postgraduate training includes a Fellowship in EEG/Epilepsy at Long Island Jewish Medical Center (LIJ). He completed a neurology residency at LIJ, where he was a Chief Resident, and an internship at Kingsbrook Jewish Medical Center. Dr. Ye completed an honorary medical degree from the prestigious Shanghai Medical University in China. He has been a primary investigator in several epilepsy clinical trials and co-investigator in many others.



## Winthrop-University Hospital's Institute for Neurosciences

Winthrop-University Hospital is a 591-bed teaching hospital located on Long Island in Mineola, NY. A major regional healthcare resource, the Hospital has been a leading healthcare provider for more than a century, dedicated to the integrity, dignity and well-being of every individual. Winthrop offers a full complement of advanced inpatient and outpatient services with a deep commitment to medical education and research.

Physicians and surgeons in **Winthrop's Institute for Neurosciences** are pioneering the use of technologically advanced approaches for the diagnosis and treatment of diseases of the brain and spine, including computerized imaging systems, state-of-the-art surgical interventions and the latest generation of medication therapies.

The Institute's interdisciplinary team includes neurologists; neurosurgeons; neurointensivists; pediatric neurologists and neurosurgeons; neuroradiologists; vascular surgeons; orthopaedic spine surgeons; neuro-oncologists; neuropathologists; neurophysiologists; and specially trained nurse practitioners, physician assistants and nurses. Specialized physical and occupational therapy, social work and other supportive services are also key components of the Institute. The Institute's experts are up to date on the latest developments in neuroscience and help pave the way for new discoveries through participation in clinical research trials, which enable them to provide patients with access to tomorrow's most promising therapies.

### Programs & Services Offered by the Institute for Neurosciences

#### Neuroscience Intensive Care Unit

The 14-bed acute care NeuroICU is reserved for patients with serious, complex neurological issues. The focus is on providing continuous monitoring and instantaneous results of critical values, allowing the expert staff, experienced in using advanced technology and providing neurocritical care, to employ aggressive interventions that treat neurological deterioration.

#### Neurology

Comprehensive Level 4 Epilepsy Center  
Movement Disorders Program  
Multiple Sclerosis Care Center  
Neurodiagnostic Laboratory

Neuromuscular/Peripheral Neuropathy Program  
Neuroscience Intensive Care Unit  
NYS Designated Stroke Center  
with AHA and ASA "Gold" Level Status

#### Neurosurgery

Aneurysm Coiling & Clipping  
Disc Replacement  
Brain Aneurysm Program  
Brain Tumor Program  
Brain & Skull Base Surgery  
Carotid Stenting & Endarterectomy  
Cerebrovascular & Endovascular Surgery  
Chiari Decompression Surgery  
Complex & Minimally Invasive Spinal Surgeries  
Complex Cranial Surgery  
Computer-Assisted Resection of Brain Tumors  
CyberKnife® Radiosurgery  
Endoscopic Pituitary Surgery  
Epilepsy Surgery Program  
Facial Pain/Trigeminal Neuralgia Program  
Image-Guided Spine Surgery  
Kyphoplasty

Merci®/Penumbra® Clot Retrieval  
Microdiscectomy  
Microneurosurgical Techniques  
Microvascular Decompression for  
Trigeminal Neuralgia & Hemifacial Spasm  
Neuro-oncology  
Parkinson's Disease Surgery Program  
Posterior Lumbar Interbody Fusion  
Prestige® Cervical Disc  
Programmable Shunt Placement  
Spinal Stimulation  
Spine Revision Surgery  
Stereotactic Radiosurgery  
Traumatic Brain & Spine Injury Diagnosis  
& Treatment  
X-Stop® for Spinal Stenosis

#### Neuroradiology

Aneurysm Treatment  
CT Perfusion Scanning  
Interventional Neuroradiology  
Neuroangiography

Positron Emission Tomography (PET) Scanning  
Ultrafast Computed Tomography (CT) &  
Magnetic Resonance Imaging (MRI)

#### Pediatric Neurology & Neurosurgery

Attention Disorders & Learning Disabilities  
Treatment  
Craniosynostosis Surgery  
Brain Tumor Treatment  
Evaluation & Treatment of Children  
with Headaches  
Evaluation & Treatment of Neurological Disorders  
Myelomeningocele Surgery

Neuro Developmental Screening &  
Early Intervention  
Pediatric Intensive Care Unit  
Seizure Disorders Management  
Surgery for Pediatric Neurovascular Disorders  
Treatment for Hydrocephalus & Other  
CNS Anomalies

**For more information, call the Institute for Neurosciences at  
1-866-NEURO-RX.**