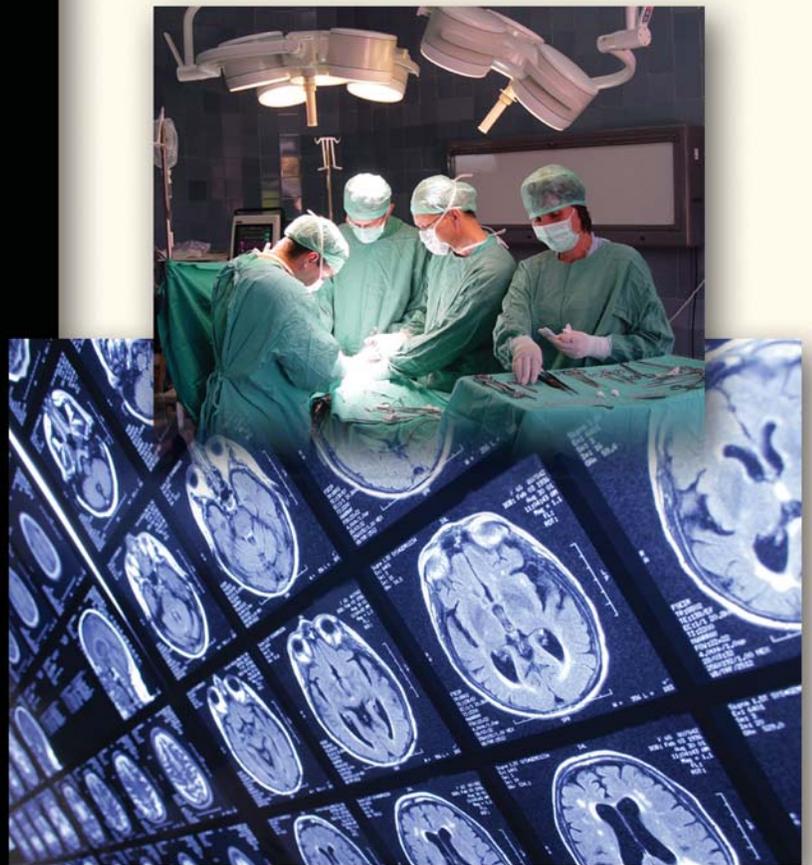


Progressive Neuroscience

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



- **CyberKnife® for Brain Tumors**
- **New MS Treatments**
- **OPLL Update**



Message from the Chiefs



Michael H. Brisman, MD



Malcolm H. Gottesman, MD

Because they attack the very essence of a person, diseases of the brain and spine have a profound effect on patients' and families' lives. Today, through a dramatic explosion of new knowledge of the nervous system, as well as the utilization of advanced technology, progressive techniques and ground-breaking treatments, we can diagnose and respond to the challenge of caring for people with neurological diseases and disorders in ways once unimaginable – even just several years ago. What we're learning each day and what we're capable of achieving is – in many instances – extraordinary.

Such accomplishments require the unparalleled multidisciplinary expertise that is offered at Winthrop-University Hospital's comprehensive **Institute for Neurosciences**. Established to diagnose and treat the full range of diseases and disorders of the nervous system, the Institute transcends departmental lines. It is equipped with state-of-the-art technology and staffed with specialists who have years of advanced training. Our mission is to serve as a model of excellence in patient care through the practice of sound and compassionate medicine, and to encourage close professional partnerships that promote distinction in clinical practice, teaching and research.

In order to share information with our colleagues in the medical community about the sophisticated care provided by Winthrop's expert neuroscience specialists, the Institute is publishing **Progressive Neuroscience**. Each issue will feature contributing physicians' and surgeons' insights and best practices with regard to the innovative, proven approaches we use to combat neurological diseases and disorders. This premier issue covers Winthrop's award-winning NeuroICU and Stroke Program, the treatment of brain tumors with CyberKnife®, new MS treatments, an update on ossification of the posterior longitudinal ligament (OPLL), trigeminal neuralgia brain surgery and the use of fluorescent dye in aneurysm evaluation. Subsequent issues will further reflect our wide range of advanced programs and services.

We are proud to be leading this exciting project as we continue to publish articles that are clinically relevant and useful to neurologists, neurosurgeons and referring physicians. We consider it a privilege to treat the patients you refer to us and look forward to an ongoing partnership in their care.

A handwritten signature in blue ink, appearing to read "M H Brisman".

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

A handwritten signature in blue ink, appearing to read "Malcolm H Gottesman".

Malcolm H. Gottesman, MD
Chief, Division of Neurology
Co-Director, Institute for Neurosciences

Contributing Surgeons & Physicians

Michael H. Brisman, MD
Chief, Division of Neurosurgery
Co-Director, Institute for Neurosciences
516.255.9031



Dr. Brisman specializes in stereotactic surgery and radiosurgery for brain tumors and trigeminal neuralgia. He is Board Certified by the American Board of Neurological Surgeons and is a Fellow of the American College

of Surgeons. His post-graduate training includes a neurosurgical residency and surgical internship at The Mount Sinai Medical Center in New York, where he was Chief Resident. He received his medical degree from Columbia University's College of Physicians and Surgeons. Dr. Brisman has published numerous articles in professional journals. He is also on the Board of Directors of the New York State Neurosurgical Society and the Nassau County Medical Society.

Jonathan L. Brisman, MD
Director, Cerebrovascular & Endovascular Neurosurgery
516.255.9031



Dr. Brisman specializes in cerebrovascular and endovascular surgery for diseases of the central nervous system. As one of fewer than 100 neurosurgeons nationwide with dual training in microneurosurgery and

endovascular techniques (and the first on Long Island), he is skilled in aneurysm clipping and endovascular coiling for brain aneurysms, and trained in advanced procedures to treat brain arteriovenous malformations (AVM), carotid disease and acute stroke. His post-graduate training includes a neurosurgical residency and surgical internship at Massachusetts General Hospital, where he was Chief Neurosurgery Resident. He completed an Interventional Neuroradiology Fellowship at Roosevelt Hospital in New York and a Microvascular Neurosurgical Fellowship at Swedish Hospital in Seattle. Dr. Brisman received his medical degree from Columbia University's College of Physicians and Surgeons. He has published over 30 articles in peer-reviewed neurosurgery journals, including a recent article entitled "Medical Progress: Cerebral Aneurysms" in the *New England Journal of Medicine*.

Jeffrey A. Brown, MD
Neurosurgical Director, CyberKnife® Center
516.478.0008

Dr. Brown — a pioneer in the development and use of motor cortex stimulation (MCS) — is nationally recognized for his expertise in complex and chronic pain syndromes,



especially facial pain. He is a past member of the Board of Directors of the American Association of Neurological Surgeons and Chair of the Joint Section on Pain of the American Association of Neurological Surgeons and Congress of Neurological Surgeons. Currently, he is Co-Chair of the Medical Advisory Board of the TNA-Facial Pain Society, an international support group for patients in pain. He has published over 50 peer-reviewed research articles on pain, as well as spine and vascular, brain tumor and functional neurosurgery in the neurosurgical literature in addition to 20 book chapters, and has delivered more than 200 invited lectures at local, regional, national and international venues.

Nancy E. Epstein, MD
Chief, Neurosurgical Spine & Education
516.354.3401



Dr. Epstein — a prominent neurosurgeon — specializes in numerous cervical, thoracic and lumbar spinal disorders. Her post-graduate training includes a residency in neurosurgery and internship in general surgery at New York University-Bellevue Medical Center. She earned her medical degree at Columbia University's College of Physicians and Surgeons. Dr. Epstein is a Diplomate of the American Board of Neurological Surgeons. She was a President of the Cervical Spine Research Society in 2001, and has served as Program Chair for both the Cervical Spine Society and the AANS/CNS Spine Sections. She has published over 200 peer-reviewed papers in medical journals, as well as many book chapters in major neurosurgical and orthopaedic surgical textbooks. Currently, Dr. Epstein serves on six spine journal editorial boards [*Spine*, *The Spine Journal*, *Journal of Spinal Disorders/Techniques*, *Surgical Neurology* (Associate Editor), *Spinal Cord* (England), *Spinal Surgery* (Japan)], and presents regularly at national and international conferences.

Malcolm H. Gottesman, MD
Chief, Division of Neurology
Co-Director, Institute for Neurosciences
516.663.4965



Dr. Gottesman specializes in the treatment of Multiple Sclerosis (MS), and is the founder of Winthrop's MS Treatment Program. The program conducts original clinical research and participates in state-of-the-art clinical

trials. Dr. Gottesman was instrumental in the establishment of the Stroke Program and Neuroscience Intensive Care Unit at Winthrop. He is Board Certified in psychiatry and neurology. His post-graduate training includes a residency in neurology at Long Island Jewish Medical Center, where he was Chief Resident. He also completed an internship and residency in psychiatry at Boston University Medical Center. Dr. Gottesman received his medical degree in an accelerated BS-MR program jointly sponsored by Rensselaer Polytechnic Institute and Albany Medical College. He has published articles in numerous professional journals and presents at national and international conferences. Dr. Gottesman received an MS Leadership award from the Long Island MS Society.

Lee E. Tessler, MD
Chairman, Neurosurgery Quality Improvement Committee
516.478.0008



Dr. Tessler specializes in the multimodality treatment of malignant and benign brain tumors, which includes stereotactic surgery and radiosurgery. He is proficient in CyberKnife®

Radiosurgery. His post-graduate training includes a residency in neurosurgery and internship in general surgery at New York University Medical Center and Bellevue Hospital Center, where he was Chief Resident. He earned his medical degree at The Ohio State University College of Medicine and Public Health in Columbus, Ohio, with clinical honors in neurosurgery and general surgery.

Elzbieta Wirkowski, MD
Director, Cerebrovascular Disorders & Stroke Program
Co-Director, Neuroscience Intensive Care Unit
516.663.4525



Dr. Wirkowski specializes in cerebrovascular neurology and neurocritical care. She is Board Certified in neurology, vascular neurology and neurocritical care. Her post-graduate training includes an internship

and residency in neurology, as well as a Cerebrovascular Fellowship at Long Island Jewish Medical Center, where she participated in multiple research trials dealing with neurocritical and cerebrovascular problems. Dr. Wirkowski earned her medical degree with honors from Warsaw University in Poland, where she also studied molecular biology. She is the author of many publications dealing with neurocritical care and stroke, and presents regularly at national and international meetings.

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-science surgical interventions and the latest generation of medication therapies.

The Institute's interdisciplinary team includes neurologists; neurosurgeons; neuro-intensivists; 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 key components of the Institute. These 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 enables them to provide patients with access to tomorrow's more promising therapies.

Programs & Services Offered by the Institute for Neurosciences

Neuroscience Intensive Care Unit

A 14-acute care-bed unit 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 neuro-critical care, to employ aggressive interventions that treat neurological deterioration.

Neurology

Epilepsy Program
Headache Program
Movement Disorders Program
Multiple Sclerosis Treatment Center

Pain Management Program
NYS Designated Stroke Center
with AHA and ASA "Gold" level status

Neurosurgery

3D Spinal Navigation
Aneurysm Coiling & Clipping
Disc Replacement
Brain Aneurysm Program
Brain Tumor Program
Brain & Skull Base Surgery
Carotid Stenting & Endarterectomy
Cerebrovascular & Endovascular 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
Microdiscectomy
Microneurosurgical Techniques
Microvascular Decompression for
Trigeminal Neuralgia
Parkinson's Surgery Program
Pediatric Neurosurgery
Posterior Lumbar Interbody Fusion
Prestige Cervical Disc
Programmable Shunt Placement
Spinal Stimulation
Stereotactic Radiosurgery
Traumatic Brain & Spine Injury Diagnosis
& Treatment
X-Stop for Spinal Stenosis

Neuroradiology

Aneurysm Treatment
CT Perfusion Scanning
Interventional Neuroradiology
Neuroangiography

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

Pediatric Neurology

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

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

For more information, call the Institute for Neurosciences at 1-866-NEURORX.



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