UW HEALTH
DEPARTMENT OF NEUROLOGICAL SURGERY

June 2015 Overview

NEUROLOGICAL SURGERY LEADERSHIP TEAM

Robert Dempsey, MD
Neurological Surgery Department Chair; Medical Director, Cerebrovascular Program

Gregory Trost, MD
Neurological Surgery Department Vice-Chair for Clinical Programs; Co-Medical Director, Spine Program

Daniel Resnick, MD
Neurological Surgery Department, Vice-Chair for Academic and Research Programs; Co-Medical Director, Spine Program; Director Residency Program

Bermans Iskandar, MD
Medical Director, Neurological Surgery Inpatient; Outpatient Pediatric Services

David Niemann, MD
Medical Director, Neuroendovascular Program

Mustafa Baskaya, MD
Medical Director, Skull Base Program

Joshua Medow, MD
Medical Director, Neurological Surgery Critical Care

John Kuo, MD, PhD
Medical Director, Brain Tumor Program

Amgad Hanna, MD
Medical Director, Peripheral Nerve Program

Nathaniel Brooks, MD
Director, Medical Student Program

Cheryl Hoeth, RHIT, CCS, MBA, FACMPE
Director, Neurology and Neurosurgery Service Line, UW Hospital and Clinics

Greg Zalesak, MPA
Director, Neurological Surgery Department, School of Medicine and Public Health; Director, Neurological Surgery Physician Practice, UW Medical Foundation

School of Medicine and Public Health
UNIVERSITY OF WISCONSIN-MADISON
UW HEALTH NEUROLOGICAL SURGERY

Mission
The Department of Neurological Surgery at the University of Wisconsin provides outstanding care and treatment for patients with brain, spine, and peripheral nerve diseases, disorders, and injuries; advances neuroscience knowledge through basic and clinical research; and trains students, residents, and fellows.

Goals
To treat patients and their families with care, compassion and candor as an extension of the referring physician care plan
To conduct innovative and ever-expanding research studies that go beyond conventional therapies to develop promising new neurosurgical treatments
To bring our fellowship-trained surgeons, specialty-trained nurses, neurosurgical expertise and real-world experience to the most difficult issues within the full breadth of patient cases
To lead the way as researchers, educators and physicians for what’s new and what’s next through our multidisciplinary, customized, patient-specific approach

Overview
The Neurological Surgery Department consists of 13 adult neurosurgeons, two pediatric neurosurgeons, one basic science faculty member and more than 60 researchers, research staff, fellows, residents, nurse practitioners, physician assistants, clinic and administrative staff. The department is currently recruiting an additional pediatric neurosurgeon.

The department has 14 residents (two per year) and offers clinical fellowships in endovascular neurosurgery and spine neurosurgery. The department also is an active participant in the AANS International Visiting Surgeon Fellowship Program.

UW Health Neurological Surgery is staffed with physicians who are recognized both nationally and internationally as leaders in the field. We have been designated as one of the top 50 in the country as ranked by U.S. News and World Report. We are a world-class center for state-of-the-art treatment based on compassionate patient care and pioneering research. Our multidisciplinary approach links the knowledge of primary care physicians and other referring professionals with the expertise developed from our nationally recognized, forward-looking research studies. This combination of the latest in technique, technology and treatment is how we have earned the trust and gratitude of thousands of patients and their referring physicians.

As a national and international leader in neurological surgery, we are dedicated to providing the very best clinical neurosurgical care for the many disorders of the brain, spinal cord and peripheral nervous system, as well as the blood vessels which support them including:

- Brain tumors
- Ischemic stroke
- Brain hemorrhages from aneurysms (congenital or acquired abnormalities)
- Spinal cord injuries or degenerations of the spinal and peripheral nerve disorders
- Pediatric and congenital disorders of the central and peripheral nervous system
- Peripheral and brachial plexus nervous system
- Degenerative disorders of the brain and spine
- Surgical interventions for epilepsy
- Neuroendovascular intervention
- Trauma-related surgery
We are a team of physicians, scientists, nurses and staff dedicated to the concept that the disorders that we treat are a major threat to the lives, comforts, and abilities of our patients. Therefore, we are dedicated to continually improving those treatments here in Wisconsin and worldwide. We have a very active research program and educational program for students, residents and graduate physicians. Our research program is continuously examining each aspect of neurosurgery and the central and peripheral nervous systems to determine new ways to diagnose, treat, and improve the lives of our patients.

**History**

The specialty’s history dates to 1942, when it began as a division of the Department of Surgery transitioning to an independent department in 1989. Today, the department has a national reputation for innovative research and clinical excellence in all aspects of neurosurgery and continues to attract top-notch resident applicants.

With only three department chairmen in more than 70 years of existence, the group has had consistent growth as a teaching and research facility. Early studies remain some of the definitive work on cerebral localization. Pioneering work on the use of osmotic agents for control of intracranial and intraocular pressure also established the department as a leader in the field.

Recent developments include:

- Multidisciplinary Stroke Program which received Comprehensive Stroke Center recognition from The Joint Commission
- Interoperative MRI suite to facilitate Deep Brain Surgery
- Critical Care division with a Neurosciences ICU
- Brachial Plexus Clinic
- Spasticity Clinic
- Robust multidisciplinary Cerebrovascular and Tumor divisions
- Pediatric intraoperative biplane and OR angiography
- Clinical cerebrovascular research
- NIH StrokeNet upper Midwest coordinating site
- Many other extended services for patients, families and referring physicans

**Services**

UW’s award-winning neurosurgery clinical programs treat adult and pediatric patients with a focus on brachial plexus, brain tumor, cerebrovascular/stroke, epilepsy, functional and restorative, neuroendovascular, skull base, spine and trauma surgery. HCAHPS scores indicate continuously high patient satisfaction.
Outreach
Sites outside of Dane County where we provide clinical services

Adult Neurosurgery/Spine
Beloit Beloit Health System
Fort Atkinson Fort Health Care
Reedsburg Reedsburg Area Medical Center

Pediatric Neurosurgery
Appleton Affinity Health System
LaCrosse** Gundersen Health System

**Target start date March 2014

Provider Advocacy Team
The UW Health Provider Advocacy team was created to effectively serve the needs of medical professionals and the patients they serve. Our Provider Relations Coordinator is a hospital-based advocate for referring providers, their staff, referral coordinators and health plan staff. The team also consists of four Physician Liaisons who assist with relationship-building activities, such as UW Health physician visits to community physician offices, CME presentations or dinner meetings. In 2013, there were more than 30 such events for the UW Health neurologists and neurosurgeons in Dubuque, Fond du Lac, Wausau, Neenah, Appleton, Beaver Dam, Stevens Point, Rockford, Freeport, Monroe, Oshkosh, Mauston, Portage, Minocqua, Appleton, Wisconsin Dells, Reedsburg and Fort Atkinson.

Support groups and community education activities
- Understanding Stroke: Stroke awareness talk for public
- Life After Stroke: Seminar for patients and families
- Stroke Camp: Three-day event for survivors and families
- Monthly Brain Aneurysm and Stroke Support Group
- Monthly Brain Tumor Support Group
- Stroke Night: Educational events for EMS

Research: Clinical studies and grants
During FY2013, a total of 25 grants were awarded in the Department of Neurosurgery. These included 15 NIH-supported projects and 15 private foundation awards and commercial clinical trials. In October 2013, the department received one of 25 NINDS Grants as an NIH StrokeNet Regional Coordinating Center.
Recent milestones

- 2015: Robert J. Dempsey, MD, honored by patients with the Physician Champion Award
- 2015: Robert J. Dempsey, MD, honored by UW School of Medicine and Public Health students with the the Distinguished Clinical Science Teaching Award. Only one physician-teacher selected from UW-Madison.
- 2015: Robert J. Dempsey, MD, is honored guest of Turkey, lecturing and working with area neurosurgeons
- 2015: Bermans Iskandar, MD, honored as a Van Wagenen lecturer by the American Association of Neurological Surgeons
- 2015: Daniel Resnick, MD, serves as President of the Congress of Neurological Surgery (CNS) Foundation
- 2014: Daniel Resnick, MD, served as President of the CNS
- 2014: Andrea Strayer, NP, Neurosurgery, received the UW Health Advanced Practice Provider Award for Excellence in Teaching
- 2014: The Society of Neurological Surgeons recognized Dr. Dempsey for “A lifetime of service to national and international medical education”
- 2014: Robert J. Dempsey, MD, was honored guest of China, lecturing and working with area neurosurgeons
- 2013: Robert J. Dempsey, MD, elected Chair of Foundation for the International Education in Neurological Surgery (FIENS)
- 2013: Daniel Resnick, MD, elected president of the Congress of Neurological Surgeons, the world’s largest neurosurgical society
- 2013: UW Health named a Regional Coordinating Stroke Center by the National Institutes of Health; will coordinate stroke research in the upper Midwest
- 2013: Amgad Hanna, MD, conducted new course on surgical techniques for peripheral nerve and brachial plexus
- 2012: UW Hospital became one of the first in the U.S. to earn Comprehensive Stroke Center Certification from The Joint Commission

- 2012: John Kuo, MD, PhD, discovered a new biomarker for Glioblastoma multiforme brain cancer
- 2012: UW Health Comprehensive Stroke Center received the American Heart Association/American Stroke Association’s Get With The Guidelines® Stroke Silver Plus Achievement Award
- 2012: Bermans Iskandar, MD, presented data linking nutritional status to developmental defects in the central nervous system
- 2012: GE Healthcare granted up to $32.9 million for a new imaging facility
- 2012: National award to honor the best resident neurosurgical research named in honor of Dr. Robert J. Dempsey
- 2011: Intraoperative Magnetic Resonance Imaging Suite opened
- 2011: Daniel Resnick, MD, conducted national conference on Comparative Efficacy of Treatment for Lumbar Spine
- 2011: Joshua Medow, MD, received the Hartwell Foundation Award to develop an implantable brain pressure monitor
- 2011: Robert J. Dempsey, MD, published a paper on silent stroke and vascular cognitive decline
- 2009: UW Health implemented a surgical technique course for skull base surgery
- 2009: Robert J. Dempsey, MD, chairman of neurosurgery, elected president of The Society of Neurological Surgeons
- 2008: John Kuo, MD, PhD, received the Young Clinician Investigator Award from the Neurosurgery Research and Education Foundation
- 2008: UW Health earned Primary Stroke Center Certification from The Joint Commission
Partnership Opportunities

- Expand cerebrovascular neurosurgical services; open and endovascular
- Formation of regional StrokeNet for improvement of cerebrovascular services and clinical research
- Partnering in pediatric neurosurgical services
- Standardization of neurosurgical critical care techniques and education
- Expanding neurosurgical education for intracranial, skull base, spine and brachial plexus nerve; simulation and cadaveric courses
- Develop services for intraoperative imaging, MRI and biplane angiography
- Development of regional best practices in neurosurgical spine care
- Joint development of cost containment initiatives for mutual patients
- Collaborating on fellowship training programs
- Establishment of statewide brachial plexus program
- Coordinating with UW Carbone Cancer Center for brain and spinal tumor care