

Curriculum Vitae

THOMAS M. WASCHER, MD

SPECIALTY

Neurosurgery

HIGH SCHOOL EDUCATION

Valedictorian of the 1977 Graduating Class of Downers Grove High School. Grade point average of 4.00/4.00. Class rank: 1 of 555.

Illinois State Scholar, 1976 and 1977.

High Honor Roll Student, 1974-1977.

COLLEGE EDUCATION

Bachelor of Science Degree with Highest Honors in Zoology, 1981, from Eastern Illinois University in Charleston, Illinois. Grade point average of 4.00/4.00.

A. College Academic Honors

- 1) Member of the *Alpha Epsilon Delta Premedical Honor Society*.
- 2) *1980 G.B. Dudley Award* for outstanding scholastic achievement in the sciences.
- 3) Member of the *Beta Beta Beta Honor Science Society*.
- 4) *1981 Beta Beta Beta Scholarship Award* in recognition of high academic achievements.
- 5) *1981 Errett and Mazie Warner Presidential Award* in recognition of outstanding scholastic achievement in the field of zoology.
- 6) *1981 Life Sciences Division Award* for academic excellence.
- 7) *1981 Alpha Epsilon Delta Premedical Honor Society Award* for outstanding scholastic achievement in the field of premedical studies.
- 8) *1982 Phi Sigma Award* for promotion of research in the biological sciences.

MEDICAL EDUCATION

Doctorate of Medicine, Magna Cum Laude, 1985 from Loyola University Stritch School of Medicine, Maywood, Illinois. Class rank: 1/128

A. Medical School Academic Honors

- 1) *Geoffery Gunnar Memorial Award* for academic excellence and exceptional interest and enthusiasm in the art and science of medicine, 1985.
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- 2) *Member of and Chapter President of the Alpha Omega Alpha Medical Society, 1985.*
- 3) *Winner of the Faculty Award for Excellence in the Basic Sciences, 1985.*
- 4) *Nominee for the Faculty Award for Excellence in the Clinical Sciences, 1985.*

B. Professional/Service Societies

- 1) *Member of the American Medical Student Association, 1983 to present.*
- 2) *Representative to the Loyola University Medical Student Union, 1984-85.*

POSTGRADUATE TRAINING

- 7/85-6/86:** Surgical Internship at Loyola University Medical Center (cardiovascular surgery, peripheral vascular surgery, anesthesia, general surgery, burns/plastics, and orthopedic surgery).
- a) 1986 American Board of Surgery In Training Examination Score: 639 (99th percentile).
- 7/86/12/86:** Clinical Neurosurgery at Hines Veterans Hospital, Hines, Illinois.
- 1/87-6/87:** Clinical Neurosurgery at Loyola University Medical Center, Maywood, Illinois.
- a) American Board of Neurologic Surgery Primary Examination, 1987 (for noncredit): 570 (78th percentile).
- 7/87-9/87:** Neuropathology at Loyola University Medical Center under E. Ross, M.D.
- 10/87-6/88:** Clinical Neurosurgery at Loyola University Medical Center.
- a) American Board of Neurologic Surgery Primary Examination, 1988 (for credit): 624 (90th percentile).
- 7/88-9/88:** Clinical and academic neurosurgical research on cerebral blood flow, skull base anatomy, and microsurgical anatomy.
- 10/88-12/88:** Visiting residency rotation with Prof. Vinko Dolenc in Ljubljana, Yugoslavia, to study the anatomy and surgery of the cavernous sinus and skull base. Preparation of the text for *Anatomy and Surgery of the Cavernous Sinus* by Dolenc. See Publications.
- 1/89-6/89:** Clinical Neurosurgery as chief resident at Loyola University Medical Center.
- 7/89-11/89:** Visiting residency rotation with Dr. W. Brown, Chief of the Division of Neurology, to study neurology at the University Hospital, London, Ontario.
- 11/89-9/90:** Clinical Neurosurgery as chief resident at Hines Veterans Administration Hospital.
- 10/90-6/91:** Clinical Neurosurgery as chief resident at Loyola University Medical Center.
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7/91-6/92: Fellow in Neurovascular Surgery under Robert F. Spetzler, M.D., at Barrow Neurologic Institute, St. Joseph's Hospital, Phoenix, Arizona.

A. Postgraduate Academic Honors

- 1) Loyola University *Foster G. McGaw Hospital Surgical Intern of the Year*, 1985-86.
 - 2) Diplomate of the National Board of Medical Examiners, 1986:

Part I 700; 98th percentile
Part II 730; 99th percentile
Part III 670; 93rd percentile
 - 3) Winner, First Prize, in the *1989 Resident Scientific Paper Competition*, Metropolitan Chapter of the American College of Surgeons.
 - 4) Recipient of the *1991 Keeley Award* given by Loyola University Medical Center for "outstanding surgical abilities and interpersonal skills with families and patients."
 - 5) Fellowship in Neurovascular Surgery under Robert F. Spetzler, M.D., at Barrow Neurologic Institute, St. Joseph's Hospital, Phoenix, Arizona.
 - 6) Recipient of *The Physicians Recognition Award, American Medical Association*, April 1, 1994 and April 1, 1997.
 - 7) Nominee for the 1994 *Jefferson Award* for exemplary service to the Wisconsin community.
 - 8) First place, *Abstract Program, Cerebrovascular Division, 1991 Congress of Neurological Surgeons Annual Meeting*, Orlando, Florida.
 - 9) 1992 *Clinical Congress of the American College of Surgeons Award for Three-Dimensional Image-Directed, Frameless, Stereotaxic-Assisted Neurosurgery*, 1992 American College of Surgeons Annual Meeting, New Orleans, Louisiana.
 - 10) Recipient of the *American Medical Association Physician Recognition Award with Special Commendation for Self-Directed Learning*, 1994-1997.
 - 11) Recipient of the *American Medical Association Physician Recognition Award with Special Commendation for Self-Directed Learning*, 1997-2000.
 - 12) Diplomate, *American Board of Neurological Surgery, American Board of Medical Specialties*, November 13, 1996.
 - 13) *CME Award in Neurosurgery, Committee on Education, American Association of Neurologic Surgery and the Congress of Neurologic Surgeons*, 1994-1997; 1997-2000; 2000-2003.
 - 14) Member, 1997, *Marquis Who's Who in Medicine and Healthcare*.
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- 15) Selected to "*Best Doctors in America*," 2000.

B. Postgraduate Certification/Participation

- 1) Advanced Cardiac Life Support Certification, 1985.
- 2) State of Illinois, Department of Registration and Education, Licensed Physician and Surgeon, 1986, #036-075601.
- 3) Resident representative to the 1986 Association of the Deans of the American Medical Schools Conference on the Medical Matching Program, Chicago, Illinois.
- 4) Cook County Graduate School of Medicine Review Course for Neurosurgery, Chicago, Illinois, in 2/88.
- 5) Midas Rex Institute Graduate, Washington, D.C., in 3/89.
- 6) Resident member of the American College of Surgeons, 1987 to 1992.
- 7) Resident member of the Congress of Neurologic Surgeons, 1986 to 1992.
- 8) State of Arizona, Board of Medical Examiners, Licensed Physician and Surgeon.
- 9) State of Wisconsin, Department of Registration and Education, Licensed Physician and Surgeon, 1992 to present, #33776.

PROFESSIONAL SOCIETIES

- 1) Member of *American Association of Neurological Surgeons*
 - 2) Member of *Congress of Neurological Surgeons*
 - 3) Member of *Wisconsin Neurosurgical Society*
 - 4) Member of *Wisconsin State Medical Society*
 - 5) Member of *North American Skull Base Society*
 - 6) Member of *American Brain Injury Consortium*
 - 7) Member of *the Joint Section of Cerebrovascular Surgery of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons*
 - 8) Member of *the Joint Section of Tumors of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons*
 - 9) Member of *the Joint Section of Neurotrauma and Critical Care of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons*
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PROFESSIONAL ACTIVITIES

- 2000-Present** Shareholder, *NeuroSpine Center of Wisconsin, S.C.*
- 8/92-2000** Shareholder, *The Neuroscience Group of Northeast Wisconsin, S.C.*
- 8/92-Present** Active Staff, *Appleton Medical Center, Appleton, Wisconsin*
- 8/92-Present** Active Staff, *Theda Clark Medical Center, Neenah, Wisconsin*
- 8/92-Present** Active Staff, *St. Elizabeth's Hospital, Appleton, Wisconsin*

COMMITTEES AND SERVICE ORGANIZATIONS

- 1992-Present** Theda Clark Medical Center Trauma Blue Committee
- 1992-Present** Theda Clark Medical Center OR Committee
- 1992-Present** Appleton Medical Center OR Committee
- 1992-Present** ThedaCare Continuing Medical Education Committee
- 1992-Present** Theda Clark Medical Center ICU Committee
- 1993-Present** Appleton Medical Center Surgical Review Committee
- 1994-Present** Continuing Medical Education Committee, Theda Clark Medical Center
- Oct 14-19, 1995** Registration Committee, Congress of Neurological Surgeons Annual Meeting, San Francisco, California.
- 1996-2000** Peer reviewer for quality monitoring activities, Professional Management Division Board, St. Elizabeth Hospital.
- 1996-Present** Appleton Medical Center ICU/CCU committee.

PUBLICATIONS

- 1) Major contributions to the text of *Anatomy and Surgery of the Cavernous Sinus* by Vinko V. Dolenc, Springer-Verlag, 1989. See acknowledgments.
 - 2) Origitano TC, WASCHER TM, Reichman OH, Anderson DE: Sustained Increased Cerebral Blood Flow after Subarachnoid Hemorrhage with Hypertensive Hypervolemic Hemodilution. *Neurosurgery* 27: 729-739, 1990.
 - 3) Origitano TC, WASCHER TM, Reichman OH, Anderson DE, Shea JF, Hahn YS: Aggressive Physiological Modulation of Cerebral Blood Flow ("Triple-H" Therapy) Results in Successful Outcome after Aneurysmal Subarachnoid Hemorrhage.
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Proceedings of the International Symposium on Vasospasm 1990, Tokyo, Japan.

- 4) WASCHER TM, Origitano TC, Reichman OH, Anderson DE, Hahn YS: Augmentation of "Triple-H" Therapy to Reverse Delayed Neurologic Deficits after Aneurysmal Subarachnoid Hemorrhage. *Proceedings of the Tenth International Symposium on Microsurgery for Cerebrovascular Disease*, 1990, San Francisco.
 - 5) WASCHER TM and Spetzler RF: Letter to the Editor regarding *Stereotactic Radiosurgery for Arteriovenous Malformations of the Brain*. (J Neurosurg 75: 512-524, 1991). (J Neurosurg 76: 1045-1046, 1992).
 - 6) WASCHER TM, Spetzler RF: "Current Trends in Subarachnoid Hemorrhage" in *Critical Reviews in Neurosurgery* edited by AJ Raimondi. Vienna: Springer-Verlag Publishers, January, 1992.
 - 7) WASCHER TM, Golfinos J, Zabramski JM, Spetzler RF: Management of Unruptured Intracranial Aneurysms. *Barrow Neurologic Institute Quarterly*, 2-7, volume 8, No. 1, Winter 1992.
 - 8) Golfinos J, WASCHER TM, Zabramski JM, and Spetzler RF: The Management of Unruptured Intracranial Vascular Malformations. *Barrow Neurologic Institute Quarterly*, 2-11, vol. 8, No. 3, Summer, 1992.
 - 9) WASCHER TM and Spetzler RF: Surgical Approaches to Lesions Involving the Brainstem. *Barrow Neurologic Institute Quarterly*, 19-28, vol. 8, No. 4, Autumn, 1992.
 - 10) WASCHER TM, Johnson P, Golfinos J, and Spetzler RF: "Definition and Pathologic Features of Cavernous Malformations" in *Cavernous Malformations* edited by IA Awad and Barrow DL. Park Ridge, Illinois: American Association of Neurologic Surgeons Publishing Committee. 1-12, 1993.
 - 11) WASCHER TM and Spetzler RF: "Microsurgical Treatment of Infratentorial Cavernous Malformations" in *Cavernous Malformations* edited by IA Awad and Barrow DL. Park Ridge, Illinois: American Association of Neurologic Surgeons Publishing Committee. 117-132, 1993.
 - 12) WASCHER TM, Spetzler RF, and Zabramski JM: Improved Transdural Exposure and Temporary Occlusion of the Petrous Internal Carotid Artery for Cavernous Sinus Surgery. A Technical Note. *J. Neurosurg* 78: 834-837, 1993.
 - 13) WASCHER TM: Stereotaxy and Stereotactic-Guided Craniotomy. *Perspectives in Medicine III*: 4-6, 1993.
 - 14) WASCHER TM, Zabramski JM, Johnson B, Golfinos J, Drayer B, Spetzler RF: Natural History of Familial Cavernous Malformations: Results of an Ongoing Study. *J Neurosurg* 80: 422-432, 1994.
 - 15) WASCHER TM, Lyons TA, and Banker C: Update in the Management of Severe Head Injury: Treatment with PEG-SOD (Dismutec). *Perspectives in Medicine*, 4: Spring/Summer, 16-17, 1994.
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- 16) WASCHER TM and Spetzler RF: Cavernous Malformations of the Brainstem in *Neurovascular Surgery*, edited by Carter LP, Spetzler RF, and Hamilton MG. New York: McGraw Hill, Inc. Pages 541-555, 1995.
- 17) WASCHER TM and Spetzler RF: Saccular Aneurysms of the Basilar Bifurcation in *Neurovascular Surgery* edited by Carter LP, Spetzler RF, and Hamilton MG. New York: McGraw Hill, Inc. Pages 729-752, 1995.
- 18) WASCHER TM and Spetzler RF: Cavernous Malformations Affecting the Region of the Fourth Ventricle, in *Surgical Disorders of the Fourth Ventricle*, edited by A Cohen. Cambridge, MA: Blackwell Science, Inc. Chapter 19, pp 298-313, 1996.
- 19) WASCHER TM and Spetzler RF: Cavernous Malformations of the Brainstem in *AVMs in the Functional Areas*, edited by S. Yamada. Armonk, NY: Futura Publishing Co, Inc., Chapter 6, pp. 163-180, 1999.
- 20) Baldwin HZ, Spetzler RF, WASCHER TM, and Daspit CP: *The Far Lateral Combined Supra- and Infratentorial Approach: Clinical Experience*. Acta Neurochir (Wien), 134:155-158, 1995.
- 21) Hamilton MG, WASCHER TM, Spetzler RF: Cavernous Malformations of the Brain Stem in *Proceedings of the International Conference on New Trends in Management of Cerebrovascular Malformations*. Verona, Italy, 1992.
- 22) WASCHER TM and Spetzler RF: The Infratemporal Fossa Approach to Cranial Base Lesions of the Posterior Fossa in *Surgery of the Craniovertebral Junction*, edited by Dickman CA, Spetzler RF, and Sonntag VKH. New York: Thieme Publishers. Pages 22-1 to 22-24, 1998.
- 23) Kurtkaya-Yapicier Ozlem Scherthauer Bernd W, Dedrick David, J, and WASCHER TM: *Primary Epithelioid Sarcoma of the Dura: Case Report*. Neurosurgery 50: 198-203, 2002.
- 24) Salman Carmen V, Ulmer John L, DeYoe Edgar A, WASCHER TM, Mathews Vincent P, Lewis James W, and Prost Robert W: *Visual Object Agnosia and Pure Word Alexia: Correlation of functional Magnetic Resonance Imaging and Lesion Localization*. Journal Computer Assisted Tomography 28: 63-67, 2004.

ABSTRACTS

- 1) Origitano TC, WASCHER TM, Caron M, Reichman OH, Shea JF, Anderson DE: Increased cerebral blood flow with aggressive hemodilution and volume expansion after subarachnoid hemorrhage. Presented at the Congress of Neurologic Surgeons, 1988, Seattle.
 - 2) WASCHER TM, Origitano TC, Reichman OH, Raymond RM, Anderson DE: Sustained increased cerebral blood flow with prophylactic hypervolemic hemodilution following subarachnoid hemorrhage. Presented at the American Association of Neurological Surgeons, 1989, Washington, D.C.
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- 3) WASCHER TM, Orogitano TC, Reichman OH, Raymond RM, Caron MJ, Anderson DE, Shea JF: Sustained increased cerebral blood flow with prophylactic hypertensive hypervolemic hemodilution following subarachnoid hemorrhage. Presented at the Ninth International Congress of Neurological Surgery, 1989, New Delhi, India.
 - 4) Reichman OH, WASCHER TM, Orogitano TC, Anderson DE, Shea JF, Hahn YS: The Loyola Protocol for acute management of subarachnoid hemorrhage. Presented at the Richard Lende Winter Neurosurgical Conference, 1990, Snowbird, Utah.
 - 5) Orogitano TC, WASCHER TM, Reichman OH, Anderson DE, Shea JF, Hahn YS: Aggressive physiological modulation of cerebral blood flow ("Triple-H" therapy) results in successful outcome after aneurysmal subarachnoid hemorrhage. Presented at the International Conference on Cerebral Vasospasm 1990, Tokyo, Japan.
 - 6) WASCHER TM, Orogitano TC, Reichman OH, Anderson DE, Shea JF: Augmentation of "Triple-H" therapy to reverse delayed neurologic deficits after aneurysmal subarachnoid hemorrhage. Presented at the Tenth International Symposium of Microsurgery for Cerebrovascular Disease, 1990, San Francisco.
 - 7) Leonetti JP, Texido MT, WASCHER TM: Cranial base dural repair with fibrin glue. Presented at the American Neurotology Society Silver Anniversary Meeting, 1990, Palm Springs, Florida.
 - 8) Orogitano TC, WASCHER TM, Reichman OH, Anderson DE: Successful management of aneurysmal subarachnoid hemorrhage using early surgery and Triple-H therapy. Presented at the Congress of Neurologic Surgeons, 1990, Los Angeles.
 - 9) Orogitano TC, WASCHER TM, Reichman OH, and Anderson DE: Cerebral blood flow patterns in patients with aneurysmal subarachnoid hemorrhage managed with Triple-H therapy. Presented at the Congress of Neurological Surgeons Annual Meeting, Orlando, FL, October 1991.
 - 10) WASCHER TM, Zabramski JM, Johnson B, Golfinos J, Drayer B, Spetzler RF: The natural history of familial cavernous malformations. Presented at the American Association of Neurologic Surgeons Annual Meeting, San Francisco, 1992.
 - 11) WASCHER TM, Fitzpatrick BC, Stewart J and Spetzler RF: Three-dimensional image-directed, frameless, stereotaxic-assisted neurosurgery in the management of cranial base neoplasms. Presented at the 1992 Annual Meeting of the American College of Surgeons, New Orleans, LA, November 1992.
 - 12) Baldwin HZ, WASCHER TM, Spetzler RF, and Dasipit CP: The combined transtentorial transpetrosal-extensive far lateral suboccipital approach: an extensive skull base approach for complex tumors of the petroclival region and foramen magnum. Presented at the 1992 Congress of Neurological Surgeons Annual Meeting, Washington, DC, November 1992.
 - 13) Kahyata MH, WASCHER TM, Zabramski JM, Flom R, and Spetzler, RF: Microsurgical endovascular treatment of cerebral AVM's. Presented at the Congress of
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Neurological Surgeons Annual Meeting, Washington, DC, 1992.

- 14) WASCHER TM, Zabramski JM, Spetzler RF: Familial cavernous malformations. A preliminary study. Presented at the Rocky Mountain Neurosurgical Society Annual Meeting, June 1992, Sedona, Arizona.
- 15) Baldwin HZ, WASCHER TM, and Spetzler RF: The combined transtentorial transpetrosal-extensive far lateral suboccipital approach: A new skull base exposure for complex tumors of the petroclival region and foramen magnum. Presented at the Rocky Mountain Neurosurgical Society Annual Meeting, June, 1992, Sedona, Arizona.
- 16) Johnson BA, Drayer BP, WASCHER TM, Zabramski JM, and Spetzler RF. The Dynamic and Variable MRI Appearance of Cavernous Malformations. Presented at the general scientific section of the 1992 Western Neuroradiologic Society, San Francisco, California, October 1-4, 1992.
- 17) WASCHER TM, Fitzpatrick BC, Stewart J, and Spetzler RF: Three-dimensional image-directed, frameless, stereotaxic-assisted neurosurgery in the management of cranial base neoplasms. Presented at the Congress of Neurological Surgeons Annual Meeting, Washington, DC, November 1992.
- 18) Francis PM, WASCHER TM, Zabramski JM, Spetzler RF, and Kahyata MH: Treatment of AVM's with associated arterial aneurysms. Presented at the Congress of Neurological Surgeons Annual Meeting, Washington, DC, November 1992.
- 19) Fitzpatrick BC, WASCHER TM, Stewart J, and Spetzler RF: Use of a frameless stereotactic navigational device during resection of skull base lesions. Presented at Congress of Neurological Surgeons Annual Meeting, Washington, DC, November 1992.
- 20) Fitzpatrick BC, WASCHER TM, and Spetzler RF: Use of an intraoperative navigational device during resection of skull base lesions. Presented at the North American Skull Base Society Annual Meeting, Phoenix, AZ, February 1993.
- 21) Fitzpatrick BC and WASCHER TM: Image-directed neurosurgery. Presented at Symposium on Recent Advances in Imaging, University of Arizona, Tucson, AZ, April 1993.

INVITED PRESENTATIONS

- 1) Sustained Increased Cerebral Blood Flow after Subarachnoid Hemorrhage with Hypertensive Hypervolemic Hemodilution. Presented at University Hospital, Ljubljana, Slovakia, 11/88.
 - 2) Management of Aneurysms of the Intracavernous Carotid Artery. Presented at Barrow Neurological Institute Symposium, December 1991.
 - 3) Three-Dimensional Imaging and Frameless Stereotaxy in the Management of Cranial Base Lesions. Presented at the French Neurosurgical Society Meeting, Chamonix France, January 1992.
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- 4) Image-Directed Neurosurgery for Brain Tumors. Presented at the British Neuro-Oncology Group's Twelfth Annual Meeting, University of Bristol, June 1992.
 - 5) Management of Spontaneous Intracerebral Hemorrhage. Presented at January, 1993, Theda Clark Medical Center Medical Education Program.
 - 6) Head Injury Management: Interface Between the Neurosurgeon and the Primary Physician. Presented at March, 1993, Theda Clark Medical Center Medical Education Program.
 - 7) Current Management of Aneurysmal Subarachnoid Hemorrhage. Presented at Appleton Medical Center Continuing Education Program, June 1, 1993.
 - 8) Pitfalls in the Diagnosis of Subarachnoid Hemorrhage. Presented at Current Topics in Neurology and Neurosurgery for the Primary Care Physician, May 20, 1994.
 - 9) Management of Acute Spinal Fractures and Spinal Cord Injury. Presented at the Eighth Annual Summer Trauma Symposium, Neenah, Wisconsin, June 14, 1994.
 - 10) Pitfalls in the Diagnosis of Subarachnoid Hemorrhage. Presented at Current Topics in Neurology and Neurosurgery for the Primary Care Physician, June 16, 1995.
 - 11) The Management of Spontaneous Intracerebral Hemorrhage. Presented at Current Topics in Neurology and Neurosurgery for the Primary Care Physician, June 16, 1995.
 - 12) New Trends and Modalities in Neurology and Neurosurgery. Presented at the Annual Neuroscience Nursing Conference, September 26, 1995.
 - 13) Current Management of Pituitary Tumors; Transsphenoidal Hypophysectomy. Presented at the 1995 Wisconsin Chapter of the American Operating Room Nurses Association Meeting, November 3, 1995.
 - 14) Evaluation of the Comatose Patient and the Glasgow Coma Scale. Presented at the 1995 Wisconsin Chapter of the American Operating Room Nurses Association Meeting, November 3, 1995.
 - 15) New Techniques and Procedures in Neurosurgery. Presented at the Fox Valley Society of Clinical Laboratory Scientists Annual Meeting, November 2, 1995.
 - 16) Current Surgical Management of Pituitary Tumors: the Transsphenoidal Approach. Presented at the Northeastern Wisconsin Chapter of the Association of Surgical Technologists Annual Meeting, September 16, 1995.
 - 17) Emergency Neurologic Evaluation of the Trauma Patient. Presented at the Ninth Annual Summer Trauma Symposium, Neenah, Wisconsin, May 16-17, 1995.
 - 18) Pediatric Spinal Injury and SCIWORA. Presented at the Tenth Annual Summer Trauma Symposium, Appleton, Wisconsin, June 11-12, 1996.
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- 19) New Trends and Techniques in Neurosurgery. Presented at the Third Annual Current Topics in Neurology and Neurosurgery for the Primary Care Physician, June 21, 1996.
- 20) Management of Primary Brain Tumors. Presented at the Third Annual Neuroscience Nurses Conference, Appleton, Wisconsin, October 20, 1997.
- 21) Advances in Neurosurgery. Presented at the 1997 American Association of Critical Care Nurses Conference for Northeast Wisconsin, March 12, 1997.
- 22) New Trends in the Management of Head Injury. Presented at the Eleventh Annual Winter Trauma Symposium, Appleton, Wisconsin, December 2, 1997.
- 23) Head Injuries. Presented at the First Trauma Nurse Specialist Refresher Course, Neenah, Wisconsin, February 5, 2003.
- 24) Surgical Management of Spinal Trauma. Presented at the Theda Clark Spinal Cord Seminar, Neenah, Wisconsin, April 21, 2004.
- 25) Head Injuries. Presented at the 2004 Trauma Nurse Specialist Course, Neenah, Wisconsin, January 6, 2004.
- 26) New Trends in Neurosurgery. Presented at the 2004 Appleton Medical Center Foundation Health Care Forum, Appleton, Wisconsin, August 26, Annual Challenges in Meeting the Needs of Patients with Spinal Cord Dysfunction, Neenah, Wisconsin, April 21, 2004.
- 27) New Trends in the Treatment of Malignant Gliomas. Presented at the Annual Meeting of Wisconsin Radiation Technologists, Appleton, Wisconsin, March 27, 2005.
- 28) Head Injuries. Presented at the Fourth Annual Trauma Nurse Specialist Refresher Course, Neenah, Wisconsin, February 14, 2006.

CURRENT AREAS OF INTEREST AND ONGOING PROJECTS

- 1) Computer-assisted frameless stereotaxy and 3-D MRI and CT reconstructions in conjunction with ISG Technologies, Toronto, Canada.
 - 2) Cerebral blood flow and cerebrovascular physiology after subarachnoid hemorrhage.
 - 3) Superoxide dismutase and the treatment of subarachnoid hemorrhage.
 - 4) Cranial base surgery and surgery of the cavernous sinus.
 - 5) Development of microsurgical anatomy laboratory for cranial base surgery.
 - 6) Development of stereotactic radiosurgery center for Northeast Wisconsin.
 - 7) Outcomes management for multimodality treatment of benign and malignant primary and secondary brain neoplasms.
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PARTICIPATION IN CLINICAL TRIALS

- 1) Primary Investigator; DISMUTEC (Polyethylene Glycol-Superoxide Dismutec) After Severe Closed Head Injury, protocol 006, Sanofi Winthrop Pharmaceutical Company, 1993-1995.
 - 2) Associate Investigator; Thrombolytic Therapy Using Tissue Plasminogen Activator in Acute Ischemic Stroke, Protocol A0276g, Genentech, Inc., 1994-1996.
 - 3) Primary Investigator: Open-Label Multi-Center, Clinical Trial of Gliadel for Patients with Recurrent Malignant Glioma, Protocol 100-9501, Guilford Pharmaceuticals, 1996-1997.
 - 4) Primary Investigator: A Double-Blind, Randomized, Placebo-Controlled Study of Intravenous CI-1009 in Patients with Severe Head Injury, Parke Davis Protocol CI-009-002, 1997-1998.
 - 5) Co-Investigator: Randomized Double-Blind, Placebo-Controlled Parallel Group Multicenter Trial of Two Doses of Fibrinolytic (TraFermin) in Patients with Acute Stroke, 1997-1999.
 - 6) Co-Investigator: Combination Therapy Lubeluzole/Activase.
 - 7) Co-Investigator: Activase in Acute Ischemic Stroke Phase IV.
 - 8) Primary Investigator: Glioma Outcomes Program sponsored by the Tumor Section of the American Association of Neurological Surgeons and Congress of Neurological Surgeons January 1998-2002.
 - 9) Primary Investigator: Ethicon, Inc., a Johnson & Johnson Company/Protocol 400-04-005/A Comparative Evaluation of Human Thrombin Versus Bovine Thrombin in Achieving Hemostasis in Patients Undergoing Cardiovascular, Neurologic (spine), and General Surgery Procedure.
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