

Curriculum Vitae

(updated March 2018)

NAME: Haring J.W. Nauta, M.D., Ph.D., FACS

BIOGRAPHICAL:

Place of Birth: The Netherlands
Citizenship: U.S.A. (Naturalized 1960)

EDUCATION:

Duke University, Durham, N.C.	B. S.	1968
	Zoology & Chem.	
Case-Western Reserve Univ., Cleveland, OH	M.D.	1974
	Medicine	
Case-Western Reserve Univ., Cleveland, OH	Ph.D.	1974
	Anatomy	

Residency:

June 1974 - July 1975	Intern in Surgery, Toronto General Hospital
July 1975 - Dec. 1979	Neurosurgical Residency, University of Toronto

PROFESSIONAL AND TEACHING EXPERIENCE:

Jan. 1980 - June 1980	Guest Investigator, Institut fur Hirnforschung der Universitat, Zurich, Switzerland
July 1980 - July 1982 Ontario,	Assistant Professor Neurosurgery, University of Toronto, Canada
July 1982 - Sept. 1985	Associate Professor Neurosurgery, University of Texas Medical Branch at Galveston
Sept. 1985 - April 1993	Associate Professor Neurosurgery and Radiation Oncology, Johns Hopkins University, Baltimore, MD
April 1993- Jan. 2009	Professor of Surgery and Chairman for Neurosurgery, University of Texas Medical Branch, Galveston, TX
Jan. 2010- present	Clinical Professor of Neurosurgery and

Neurosurgery Residency Program Director
University of Louisville,
Louisville, KY

PAST AND PRESENT RESEARCH ACTIVITIES:

- 1) Neuroanatomical tract-tracing technique development using axonal transport phenomena
- 2) Neuroanatomy of Basal Ganglia and Limbic System links to Motor Systems.
- 3) Neuron-specific lesions produced by selective neurotoxins
- 4) Embolization of intracranial arterio-venous malformations, carotid-cavernous fistulae, and cerebral aneurysms.
- 5) Translational pain research.
- 6) Molecular changes in the dorsal root ganglion following injury to the peripheral or central nerve root.
- 7) MR Spectrography of Head Injured Patients.
- 8) Intra-operative CT scanning for stereotactic, cranial and spinal neurosurgery
- 9) Systems for better perioperative monitoring of Neurosurgical Patients
- 10) Post synaptic dorsal column visceral pain pathway and its surgical manipulation for the treatment of intractable cancer pain.

COMMITTEE RESPONSIBILITIES:

A. National/State

- 1) Past-President of Texas Association of Neurological Surgeons (2001-2002)
- 2) Society of Neurological Surgeons, Nominating Committee (1998-2002 , Chairman 2002)

B. Johns Hopkins Hospital

Ethics Committee for Neurosciences
Quality Assurance Committee for Neurosciences

C. UTMB

Trauma Committee
ICU Advisory Board

Operating Room Committee
Search Committee for Department of Neurology
Search Committee for Department of Neuroscience
Search Committee for Department of Otolaryngology
Promotion and Tenure Committee

D. University of Louisville

Trauma Center Committee
Graduate Medical Education Committee
Residency Program Director for Neurosurgery
Physicians Peer Review Committee

TEACHING RESPONSIBILITIES AT UTMB:

Maintenance of the ACGME certified Neurosurgery Residency Training Program.
Education and Training of Residents in Neurological Surgery, including Anatomy,
Physiology, and Surgical Techniques
CORE Lectures for 3rd and 4th year Medical Students

MEMBERSHIP IN SCIENTIFIC SOCIETIES:

Society of Neurological Surgeons
The American Association of Neurological Surgeons
American College of Surgeons
The Congress of Neurological Surgeons
Texas Association of Neurological Surgeons
World Society for Stereotactic and Functional Neurosurgery

BOARD CERTIFICATION AND FELLOWSHIPS:

1975 National Board of Medical Examiners
1983 American Board of Neurological Surgery
1985 Fellow of the American College of Surgeons
2012 Fellow of the American Association of Neurological Surgeons

LICENSURE INFORMATION:

1982 Texas G2443 (Inactive)
1985 Maryland D0032784 (Inactive since 1996)
2009 Montana 11992
2009 Kentucky 42987
2015 Indiana 01075284A

HONORS AND AWARDS:

- 1973 Elected to Alpha Omega Alpha
- 1981 Medical Research Council of Canada "MRC Scholar" Award
- 2013 Excellence in Teaching Award, University of Louisville Department of Neurosurgery
- 2015 Excellence in Teaching Award, University of Louisville Department of Neurosurgery

PUBLICATIONS:

Articles in Peer-Review Journals

Nauta, H.J.W.; Butler, A. B.; and Jane, J.A. Some observations on axonal degeneration resulting from superficial lesions of the cerebral cortex. *J. Comp. Neurol.* 150: 349-360; 1973.

Graybiel, A.M.; Nauta, H.J.W.; Lasek, R.J.; Nauta, W.J.H. A Cerebellar-olivary pathway in the cat: An experimental study using autoradiographic techniques. *Brain Research* 58: 205-211; 1973.

Nauta, H.J.W. Evidence of a pallidohabenular pathway in the cat. *J. Comp. Neurol.* 156: 19-28; 1974.

Nauta, H.J.W.; Cole, M. Efferent projections of the subthalamic nucleus. *Trans. Am. Neurol. Assn.* 99: 57-60; 1974.

Nauta, H.J.W.; Pritz, M.B.; Lasek, R.J. Afferents to the rat caudoputamen studied with horseradish peroxidase: An experimental evaluation of a retrograde neuroanatomical research method. *Brain Research* 67: 219-238; 1974.

Nauta, H.J.W.; Kaiserman-Abramof, I.R.; Lasek, R.J. Electron microscopic observations of horseradish peroxidase transported from the caudoputamen to the substantia nigra in the rat: Possible involvement of the agranular reticulum. *Brain Research* 85: 373-374; 1975.

Nauta, H.J.W.; Cole, M. Efferent projections of the subthalamic nucleus: an autoradiographic study in monkey and cat. *J. Comp. Neurol.* 180: 1-16; 1978.

Nauta, H.J.W. Projections of the pallidal complex: an autoradiographic study in cat.

Neurosci. 4: 1853-1873; 1979.

Nauta, H.J.W. A proposed conceptual reorganization of the basal ganglia and telencephalon. *Neurosci.* 4: 1875-1818; 1979.

Nauta, H.J.W.; Tucker, W.S.; Horsey, W.M.; Gonzales, C.; Bilbao, J. Xanthochromic cysts associated with meningiomas. *J. Neurol. Neurosurg. Psychiat.* 42: 529-535; 1979.

Katz, M.J.; Lasek, R.J.; Nauta, H.J.W. Ontogeny of the substrate pathways and the origin of the neural circuit pattern. *Neurosci.* 5: 821-834; 1980.

Zumstein, B.; Yasargil, M.G.; Curcic, M.; Nauta, H.J. Experiences with the extra- to intracranial bypass in the surgical management of cerebral aneurysms (9 cases). *Neurol. Res.* 2: 327-343; 1980.

Nauta, H.J.W.; Platts, M.E. A case of Huntington's chorea with unilateral ectopic grey matter. *Can. J. Neurol. Sci.* 8: 181-184; 1981.

Nauta, H.J.W.; Cuenod, M. Perikaryal cell labeling in the subthalamic nucleus following injection of ³H-GABA into the pallidal complex. *Neurosci.* 11: 2725-2734; 1982.

Nauta, H.J.W.; Dolan, E.; Yasargil, M.G. Microsurgical anatomy of the spinal subarachnoid space. *Surgical Neurol.* 19: 431-437; 1983.

Nauta, H.J.W.; Guinto, F.C., Jr.; Pisharodi, M. Arterial bolus contrast enhancement for computed tomographically guided Stereotactic Biopsy. *Surgical Neurology* 22: 559-564; 1984.

Guinto, F.C., Jr.; Nauta, H.J.W.; Hashim, H.; Pisharodi, M. Combined metrizamide and arterial dynamic CT in arteriovenous malformation of the spinal cord. *Surgical Neurology* 22: 181-185; 1984.

Pisharodi, M.; Nauta, H.J.W. An animal model for neuron-specific spinal cord lesions by the microinjection of N-methylaspartate, kainic acid, and quisqualic acid. *Appl. Neurophysiol.* 48: 226-233; 1985.

Nauta, H.J.W.; Briner, R.P.; Eisenberg, H.M. Computed tomogram guided brain biopsy in the pediatric patient. *Pediat. Neurosci.* 12: 63-67; 1986.

Mirfakhraee, M.; Crofford, M.J.; Guinto, F.C. Jr.; Nauta, H.J.W.; Weedn, V.W. Virchow-Robin space: a path of spread in neurosarcoidosis. *Radiology* 158:715-720; 1986.

Nauta, H.J.W.; Contreras, F.L.; Weiner, R.L.; Crofford, M.J. Brainstem abscess managed with computed tomography-guided stereotactic aspiration. *Neurosurgery* 20: 476-480; 1987.

Uematsu, S.; Rosenbaum, A.E.; Erozan, Y.S.; Gupta, P.K.; Moses, H.; Nauta, H.J.; Rigsby, W.H.; Wang, A.; Weiderman, L.; Kumar, A.J. Intraoperative CT monitoring during stereotactic brain surgery. *Acta Neurochirurgica*, Suppl. 39: 18-20; 1987.

Uematsu, S.; Rosenbaum, A.E.; DeLong, M.R.; Citrin, Ch. M.; Jankel, W.R.; Kumar, A.J.; McArthur, J.C.; Nauta, H.J.W.; Sherman, J.; Narabayashi, H. Magnetic Resonance Planned Thalamotomy followed by X-ray/CT-guided Thalamotomy. *Acta Neurochirurgica*, Suppl. 39: 21-24; 1987.

Hanneken, A.M.; Miller, N.R.; DeBrun, G.M.; Nauta, H.J. Treatment of carotid-cavernous fistulas using a detachable balloon catheter through the superior ophthalmic vein. *Arch. Ophthalmol.* 107: 87-92; 1987.

DeBrun, G.M.; Nauta, H.J.W.; Miller, N.R.; Drake, C.G.; Heros, R.C.; Ahn, H.S. Combining the detachable balloon technique and surgery in imaging carotid cavernous fistulae. *Surgical Neurology* 32: 3-10; 1989.

Salibi, S.S.; Nauta, H.J.W.; Brem, H.; Epstein, J.I.; Cho, K. Lipomeningioma: Report of three cases and review of the literature. *Neurosurgery* 25: 122-126; 1989.

Nauta, H.J.W. Calcium channel blockade in patients with subarachnoid hemorrhage: A clinical perspective on nimodipine. *Today's Therapeutic Trends* 7: 1-10; 1989.

Salibi, S.S.; Empting-Koschorke, G.; Nauta, H.J.W. Aneurysmal Subarachnoid Hemorrhage; diagnosis, treatment and outcome. *Critical Care Report* 1: 22-38; 1989.

Uematsu, S.; DeLong, M.R.; Jankel, W.; McArthur, J.; Rosenbaum, A.E.; Nauta, H.J.W.; Narabayashi, H. Microphysiological Recordings at CT Gantry Site during Stereotactic Thalamotomy. *Stereotact. Funct. Neurosurg.* 52: 183-190; 1989.

Koliatsos, V.E.; Nauta, H.J.W.; Clatterbuck, R.E.; Holtzman, D.M.; Mobley, W.C.; Price, D.L. Mouse nerve growth factor prevents degeneration of axotomized basal forebrain cholinergic neurons. *J. Neurosci.* 10: 3801-3840; 1990.

Hanley, D.F.; DeBrun, G.; Nauta, H.J.; Preziosi, T.; Borel, C.O.III; McPherson, R.; Heffez, D.; Salibi, S.S. Disorders of Cerebral Circulation: Interdisciplinary neurovascular conference. *Critical Care Report* 1: 140-147; 1990

Sherman, M.E.; Erozan, Y.S.; Mann, R.B.; Kumar, A.A.J.; McArthur, J.C.; Royal, W.; Uematsu, S.; Nauta, H.J.W. CT-Guided stereotactic biopsy in the diagnosis of malignant lymphoma. *American Journal of Clinical Pathology* 95: 878-883; 1991.

Koliatsos, V.E.; Clatterbuck, R.E.; Nauta, H.J.W.; Knusel, B.; Burton, L.E.; Hefti, F. F.; Mobley, W.C.; Price, D.L. Human nerve growth factor prevents degeneration of basal forebrain cholinergic neurons in primates. *Ann. Neurol.* 30: 831- 40; 1991.

Monsein, L.H.; DeBrun, G. M.; Miller, N.R.; Nauta, H.J.W.; Chazaly, J.R. Treatment of dural carotid-cavernous fistulas via the superior ophthalmic vein. *Am. J. Neurorad.* 12: 435-439; 1991.

Sipos, E.P.; Kirsch, J.R.; Nauta, H.J.W.; Debrun, G.M.; Ulatowski, J.A.; Bell, W.R. Intra-arterial urokinase for treatment of retrograde thrombosis following resection of an arteriovenous malformation. *J. Neurosurgery* 76: 1004-1007; 1992.

Eggenberger, E.R.; Miller, N.R.; Hoffman, P.N.; Nauta, H.J.W.; Green, W.R. Mesencephalic ependymal cyst causing an inferior divisional paresis of the oculomotor nerve: case report. *Neurology* 43: 2419-20; 1993.

Razumovsky, A.Y.; Monsein, L.H.; Ackerman, S.J.; Nauta, H.J.W.; Hanley, D.F. Validation of Transcranial Doppler Ultrasound with an In Vivo Stereotactic Technique. *Am. J. Neurorad.* 15: 1349-1350; 1994.

Nauta, H.J.W. Error assessment during “image guided” and “imaging interactive” stereotactic surgery. *Computerized Medical Imaging and Graphics* 18: 279-287; 1994.

Miller NR, Debrun GM, Nauta HJW, Tamargo R. Endovascular treatment of dural carotid-cavernous sinus fistulas using the superior ophthalmic vein. *Neuro-Ophthalmology* 14(Suppl.):S54, 1994

Monsein, L.H.; Razumovsky, A. Y.; Ackerman, S.J.; Nauta, H.J.W.; Hanley, D.F. Validation of transcranial doppler ultrasound with a stereotactic neurosurgical technique. *J. Neurosurgery* 82: 972-975; 1995.

Miller, N.R.; Monsein, L.H.; Debrun, G.M.; Tamargo, R.J.; Nauta, H.J.W. Treatment of Carotid-cavernous Fistulas using a superior ophthalmic vein approach. *J. Neurosurgery* 83: 838-842; 1995.

Aletich, V.A.; Debrun, G.M.; Monsein, L.H.; Nauta, H.J.W.; Spetzler, R.F. Giant serpentine aneurysms: a review and presentation of five cases (published erratum appears in AJNR 16:1747). *Am. J. Neurorad.* 16:1061-1072; 1995.

Arya, S.; Crow, W.N.; Hadjipavlou, A.G.; Nauta, H.J.W.; Borowski, A.M.; Vierra, L.A.; Walser, E. Percutaneous transpedicular management of discitis. *J. Vascular and Interventional Radiology* 7: 921-927; 1996.

Nardone, E.M.; Chen, J.W.; Maggio, W.W.; Nauta, H.J.W. The value of intraoperative ultrasonography in cervical corpectomy: assessment by postoperative computed tomography. *Neurosurgery* 39: 971-974; 1996.

Nauta, H.J.W.; Hewitt, E.; Westlund, K.N.; Willis, W.D. Surgical interruption of a midline dorsal column visceral pain pathway. Case report and review of the literature. *J. Neurosurgery* 86: 538-542; 1997.

Soukup, V.M.; Ingram, F.; Schiess, M.C.; Bonnen, J.G.; Nauta, H.J.W.; Calverly, J.R. Cognitive sequelae of unilateral posteroventral pallidotomy. *Arch. Neurol.* 54: 947-950; 1997.

Lee, A.G.; Phillips, P.H.; Newman, N.J.; Hayman, L.A.; Schiffman, J.S.; Segal, S.E.; Nauta, H.J.W.; Wolin, M.J.; Tang, R.A. Neuro-ophthalmologic manifestations of adenoid cystic carcinoma. *J. Neuro-ophthalmology* 17: 183-188; 1997.

Hadjipavlou, A.G.; Mader, J.T.; Nauta, H.J.W.; Necessary, J.T.; Chaljub, G.; Adesokan, A. Blastomycosis of the lumbar spine: case report and review of the literature, with emphasis on diagnostic laboratory tools and management. *Eur Spine J* (1998) 7:416-421; 1997.

Vrabec, J.T.; Guinto, F.C.; Nauta, H.J. Recurrent facial neuromas. *Am. J. Otol.* 19:99-103. 1998.

Nauta, H.J.W.; Wehman, J.C.; Koliatsos, V.E.; Terrell, M.A.; Chung, K-S. Intraventricular Infusion of Nerve Growth Factor Causes Sympathetic Sprouting in the Sensory Ganglia. *J. Neurosurgery* 91:447-453; 1999 .

Schiess, M.C.; Zheng, H.; Soukup, V.M.; Bonnen, J.G.; Nauta, H.J.W. Parkinson's disease subtypes: clinical classification and ventricular cerebrospinal fluid analysis. *Parkinsonism and Related Disorders* 6: 69-76; 2000

Nauta, H.J.; Soukup, V.M.; Fabian, R.H.; Lin, J.T.; Grady, J.J.; Williams, C.G.; Campbell, G.A.; Westlund, K.N.; Willis, W.D., Jr. Punctate midline myelotomy for the relief of visceral cancer pain. *Journal of Neurosurgery* 92 (2 Suppl): 125-30; 2000

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Gelman, B.B.; Trier, T.T.; Chaljub, G.; Borokowski, J.; Nauta, H.J. Oncocytoma in melanocytoma of the spinal cord: case report. *Neurosurgery* 47 (3): 756-9; 2000

Muffoletto, A.J.; Hadjipavlou, A. G.; Jensen, R.E.; Nauta, H.J.W.; Necessary, J.T.; Norcross-Nechay, K. Techniques and Pitfalls of Cervical Lateral Mass Plate Fixation. *American Journal of Orthopedics* November; 2000.

Muffoletto, A.J.; Nader, R.; Westmark, R.M.; Nauta, H.J.; Garges, K.J.; Hadjipavlou, A.G. Hematogenous pyogenic facet joint infection of the subaxial cervical spine. A report of two cases and review of the literature. *Journal of Neurosurgery* 95 (1 Suppl): 135-8; 2001.

Nader, R., Alford BT, Nauta HJ, Crow W, vanSonnenberg E, Hadjipavlou, A.G. Preoperative embolization and intraoperative cryotherapy as adjuncts in resection of hypervascular lesions of the thoracolumbar spine. *Journal of Neurosurgery*, Oct 97(Spine 3):294-300, 2002.

Maioriello A.V., Chaljub G., Nauta H.j.W., and Lacroix M. Chemical shift Imaging of mannitol In acute cerebral Ischemia. *Journal of Neurosurgery* 97:687-691, 2002

Gelman BB, Popov V, Chaljub G, Nader R, Rauf SJ, Nauta HW, and Visvesvara GS. Neuropathology and ultrastructural features of encephalitis due to *Sappinia diploidea*. *Journal of Neuropathology and Experimental Neurology* Oct;62(10):990-8, 2003.

Cheryl A. Lehman, Joan M. Hayes, Michel LaCroix, Steven V. Owen, Haring J.W. Nauta. Development and implementation of a problem-focused neurological assessment system. *Journal of Neuroscience Nursing*. August 2003 v35 i4 p185(8).

Hauck EF, Nauta HJ. Spontaneous spinal epidural arteriovenous fistulae in neurofibromatosis type-1. *Surg Neurol*. 2006 Aug;66(2):215-21. Review.

Wu J, Su G, Ma L, Zhang X, Lei Y, Lin Q, Nauta HJ, Li J, Fang L. The role of c-AMP-dependent protein kinase in spinal cord and post synaptic dorsal column neurons in a rat model of visceral pain. *Neurochem Int*. 2007 Apr;50(5):710-8. Epub 2007 Jan 25.

Franklin B, Gasco J, Rangel-Castilla L, Nauta HJ. Apnea and macrocephaly-cutis marmorata telangiectatica congenital. *Brain Dev.* 2008 Nov 26. [Epub ahead of print]

Hauck EF, McGinnis M, Nauta HJ. Cerebral phaeohyphomycosis mimics high-grade astrocytoma.

J Clin Neurosci. 2008 Sep;15(9):1061-6. Epub 2008 Jul 9.

Wu J, Zhang X, Nauta HJ, Lin Q, Li J, Fang L. JNK1 regulates histone acetylation in trigeminal neurons following chemical stimulation. *Biochem Biophys Res Commun.* 2008 Nov 28;376(4):781-6. Epub 2008 Sep 24

Rangel-Castilla L, Gasco J, Nauta HJ, Okonkwo DO, Robertson CS. Cerebral pressure autoregulation in traumatic brain injury. *Neurosurg Focus.* 2008 Oct;25(4):E7. Review.

Hauck EF, Vu L, Campbell GA, Nauta HJ. Intraventricular ganglioglioma *J Clin Neurosci.* 2008 Nov;15(11):1291-3. Epub 2008 Oct 1. Review.

Hauck EF, Wei J, Quast MJ, Nauta HJ. A new technique allowing prolonged temporary cerebral artery occlusion. *J Neurosurg.* 2008 Dec;109(6):1127-33.

Rangel-Castilla L, Torres-Corzo J, Vecchia RR, Mohanty A, Nauta HJ. Coexistent intraventricular abnormalities in periventricular giant arachnoid cysts. *J Neurosurg Pediatr.* 2009 Mar;3(3):225-31.

Gasco J, Hooten K, Ridley RW, Rangel-Castilla L, Adewumi A, Nauta HJ, Resto V. Neuro-navigation-guided endoscopic decompression of superior orbital fissure fracture: case report and review of the literature. *Skull Base* 2009; 19:241-246.

Baker, A, and Nauta, HJ. Trigeminal Neuralgia, Case report and review of treatment options *Louisville Medical Society Journal*, 2011.

Aljuboori, Z., Hruska, R., Yaseen, A., Arnold, F., Wojda, B., & Nauta, H. (2017). Fungal brain abscess caused by “Black Mold” (*Cladophialophora bantiana*) – A case report of successful treatment with an emphasis on how fungal brain abscess may be different from bacterial brain abscess. *Surgical Neurology International*, 8, 46.
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Articles by invitation in otherwise peer reviewed Journals

Nauta, H.J.W. Newly discovered Visceral Pain Pathway in the Midline of the Spinal Cord Dorsal Columns Can Be Surgically Interrupted to Relieve Severe Visceral Pain. *Current Surgery* 54:473-475; 1997.

Articles as Proceedings of Meetings

Nauta, H.J.W.; Bonnen, J.G.; Soukup, V.M.; Gonzalez, A.; Schiess, M.C. Imaging-intensive guidance with confirmatory physiological mapping for neurosurgery of movement disorders. In: Surgical Assist Systems, *SPIE* (Society of Photo-Optical Instrumentation Engineers) Vol. 3262:253-258; 1998.

Nauta, H.J.W.; Bonnen, J.G. Problems of intraoperative anatomical shift in image-guided surgery. In: Surgical Assist Systems, *SPIE* (Society of Photo-Optical Instrumentation Engineers) Vol. 3262:229-233; 1998.

Other Publications

Nauta, H.J.W. Efferent projections of the caudate nucleus, pallidal complex and subthalamic nucleus in the cat. (Thesis) University Microfilms, Ann Arbor, 1974.

Toronto Cerebrovascular Study Group, Risks of Carotid Endarterectomy. *Stroke*, 17:848-852; 1986.

Invited Book Chapters

Nauta, H.J.W. A simplified perspective on the basal ganglia and their relation to the limbic system. In: Doane, B.K.; Livingston, K.E. (eds) *The Limbic System: Functional Organization and Clinical Disorders*. Raven Press, New York; 1986

Nauta, H.J.W. The relationship of the basal ganglia to the limbic system. In: Vinken, P.J.; Bruyn, G.W.; Klawans, H.L. (eds.) *Handbook of Clinical Neurology*, Vol. 5 (49): *Extrapyramidal Disorders*; 1986

Nauta, H.J.W. Intracranial Aneurysms In: Johnson, R.T. (ed) *Current Therapy in Neurologic Disease-2*. B.C. Decker, Inc, Toronto. 1987.

Nauta, H.J.W.; DeBrun, G.M. Giant aneurysm of the basilar artery. In Long, D.M.(ed), *Current Therapy in Neurological Surgery*. B.C. Decker, Inc, Toronto; 1989

Razumovsky, A.Y.; Williams, M.A.; Lee, A.; Denchev, D. ; Nauta, H.J.W.; Hanley, D.F. Patterns of linear blood flow asymmetry following subarachnoid

hemorrhage In: Findlay, J. Max. *Cerebral Vasospasm*, Elsevier Science Publishers, B.V., pp43-46; 1993

Nauta, H.J.W.; Westlund-High, K.N.; Willis, W.D. Midline Myelotomy. In Burchiel, Kim J. *Surgical Management of Pain*, Chapter 57. Thieme Medical Publishers, NYNY; 2001.

Nauta, H.J.W. *Encyclopedia of Pain*, Chapter Midline Myelotomy.

Patterson, J.T., Franklin, R., Hanbali, F, Nauta, HJW, Chapter on Neurosurgery, Sabiston's Textbook of Surgery. 2007.

Nauta HJW, Westlund KN, Willis WD. Midline myelotomy and the interruption of the postsynaptic dorsal column pain pathway for the treatment of visceral pain. In: Burchiel K, ed. *Surgical Management of Pain*, 2nd edition. New York, NY: Thieme; 2014: 561-575 (Chapter 57).

Abstracts

Voneida, T.J.; Jane, J.A.; Nauta, H.J.W. Interhemispheric projections in the hedgehog. *Anat. Rec.* 1969

Schroeder, D.A.; Jane, J.A.; Nauta, H.J.W. Projections of the deep cerebellar nuclei in the hedgehog. *Anat. Rec.* 1970.

Nauta, H.J.W. An autoradiographic study of basal ganglia projections in the cat. *11th Canadian Congress of Neurological Sciences*, Winnipeg; 1976.

Nauta, H.J.W. A neuroanatomical study of a caudally directed pathway issuing from the basal ganglia in the cat. *13th annual Canadian Congress of Neurological Sciences*. Vancouver; 1978.

Tucker, W.S.; Nauta, H.J.W.; Horsey, W.; Gonzales, C.; Bilbao, J. Xanthochromic cysts associated with meningioma. *14th annual Congress of Neurological Sciences*, Halifax; 1979.

Nauta, H.J.W. Afferent projections to the basal ganglia output cells. *American Association of Neurological Surgeons*, Boston; 1981.

Nauta, H.J.W. Neuroscience Update for the Neurosurgeon. *Congress of Neurological Surgeons*, Toronto; 1982.

Nauta, H.J.W. Neurotransmitter hierarchy in the limbic system. *International Symposium on Patterns of Limbic System Dysfunction*. Toronto; 1982.

Nauta, H.J.W.; Carter, D.A. Anatomical evidence of a possible glycinergic reticulospinal pathway. *Society for Neuroscience*, Boston; 1983.

Stiernberg, C.M.; Nauta, H.J.; Norris, W.B. Combined craniofacial approach for a large frontal sinus mucocoele. *13th World Congress of Otolaryngology*. 1983.

Nauta, H.J.W.; Guinto, F.C., Jr. Visualization of tumor vasculature during CT-guided stereotactic biopsy procedures. *Congress of Neurological Surgeons*, Chicago; 1983.

Nauta, H.J.W; Pisharodi, M. An animal model of thalamotomy by the microinjection of a neuron-specific toxin (N-methylaspartate): Advantages over radiofrequency lesions. *American Association of Neurological Surgeons, Annual Meeting*. San Francisco; 1984.

Pisharodi, M.;Nauta, H.J.W. An animal model for neuron-specific spinal cord lesions by the microinjection of N-methylaspartate(NMA), kainic acid (KA), and quisqualic acid, (QA). *9th meeting of the World Society for Stereotactic and Functional Neurosurgery*. Toronto; 1985.

Pisharodi, M.;Nauta, H.J.W. A comparative study of the effects of N-methyl aspartate (NMA), quisqualic acid (QA) and kainic acid (KA) in producing neuronal specific lesions in motor thalamus of rat. *9th meeting of the World Society for Stereotactic and Functional Neurosurgery*. Toronto; 1985.

Pisharodi, M.; Nauta, H.J.W. Thermal analgesia produced by the application of capsaicin to the rat cauda equina after suppression of the initial pain reaction by lidocaine. *8th International Congress of Neurological surgery*. Toronto; 1985.

Nauta, H.J.W.; Kadekaro, M.; Vance, W.H.; Terrell, M.L.; Creel, M. Effects of capsaicin-induced analgesia on glucose utilization in the spinal cord. *Neurosci. Abst.* Vol. 12; 1986.

Martin, L.J.; Koliatsos, V.E.; Nauta, H.J.W.; DeLong, M.R.; Price, D.L. Substantia innominata and pedunculopontine tegmental nucleus in the rat: Evidence for predominantly non-cholinergic reciprocal innervation. *Neurosci. Abstr.* vol 13; 1987.

Nauta, H.J.W. Evaluation of focal cerebral ischemia protectants by serial PET scanning in baboon. *American Association of Neurological Surgeons, Annual Meeting*, Toronto; 1988.

Nauta, H.J.W.; DeBrun, G.M.; Miller, N.R. Balloon occlusion of carotid-cavernous fistulae by a transvenous approach through the superior ophthalmic vein. *American Association of Neurological Surgeons, Annual Meeting*, Toronto, Canada; 1988.

Koliatsos, V.E.; Mobley, W.C.; Nauta, H.J.; Price, D.L. Responses of central cholinergic neurons to axonal injury in non-human primates. *Society for Neuroscience Abstracts*. 1989.

Nauta, H.J.; DeBrun, G.M.; Miller, N.R. Combining surgery and embolization in the treatment of carotid-cavernous fistulae with special reference to the superior ophthalmic vein approach. *Neurosurgical Society of America, Annual Meeting*, Bermuda; 1989.

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Nauta, H.J.W.; Holliday, M.J.; Miller, N.R. Consequences of multiple or bilateral cranial nerve deficits associated with skull base lesions. *Symposium on the comprehensive management of cranial base lesions*, Charlottesville, Virginia, May; 1991.

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Yang, N-C.; Lam, W-C.; Nauta, H.J.W.; Joshi, U. CT volumetrics for volumes of a few cubic centimeters. *Presented at A APM meeting*; 1992.

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Nauta, H.J.W.; Kooistra, H.; Grafe, M.; Quast, M.; Iacono, R.P. Enhanced analysis of autopsy material from stereotactic pallidotomy patients. J. Neurology, Neurosurgery and Psychiatry at the Proceedings of the *Society of British Neurological Surgeons and the Neurosurgical Society of America*, Annual Meeting, Cambridge; 1997.

Muffoletto, A.; Hadjipavlou, A.G.; Jensen, R.E.; Nauta, H.J.W.; Necessary, J.T.; Norcross-Nechay, K. Factors associated with good outcome using lateral mass plate fixation. Presented at the *North American Spine Society Annual Meeting*; 1997.

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Bonnen, J.G.; Schiess, M.C.; Soukup, V.M.; Calverly, J.R.; Nauta, H.J. Imaging intensive posteroventral pallidotomy: technique and results. Oral presentation at the *Congress of Neurological Surgeons Annual Meeting*, New Orleans. LA. 1997

Bonnen, J.G.; Schiess, M.C.; Zheng, H.; Soukup, V.M.; Calverly, J.R.; Nauta, H.J. Amino Acids in Ventricular CSF of Parkinson's Disease Patients. Poster presentation at the *Congress of Neurological Surgeons Annual Meeting*, New Orleans. LA.;1997

Nauta, H.J.W.; Wehman, J.C.; Koliatsos, V.E.; Terrell, M.A.; Chung, K-S. NGF-induced Sprouting of Sympathetic Nerve Fibers into Sensory Ganglia: A Problem for Alzheimer's Therapy. *Neurosurgical Society of America Annual Meeting*, Quebec City, Quebec, Canada; 1998.

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Nauta, H.J.W.; Soukup, V.M.; Lin, J.T.; Williams, C.G.; Grady, J.J.; Westlund, K.N.; Willis, W.D. Clinical Evidence of a dorsal column visceral pain pathway. *Neurosurgical Society of America*, Annual Meeting in Phoenix, AZ; April 1999.

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Gelman, B.B.; Chaljub, G.; Nader, R.; Borowski, J.; Popov, V; Visvesvara, G.; Rauf, S.; Nauta, H. A new genus of free living ameba producing human encephalitis: *Sappinia diploidea*. American Association of Neuropathologists, Annual Meeting, Atlanta; 2000

Nauta, H J W; Keherly, M.; Schin, M-L. Persistent post-compression radiculopathy: Progress and barriers to study from behavioral analysis to molecular changes. Presented from podium at Neurosurgical Society of America, Annual Meeting Durango, Colorado; April 2000.

Hadjipavlou, A. G., Papdopoulos, C. Maggio, W., Katonis, P., and Nauta, H. Correlation of cervical spinal cord myelopathy to compressive cervical spine lesions and surgical outcomes. 5th Congress of the European Federation of National Associations of Orthopedics and Traumatology. Rhodes , Greece, June 3-7, 2001.

Nauta, H.J.W. Problem focused perioperative neurological assessment. Neurosurgical Society of America Annual Meeting, Sun River, Oregon, June 8-11, 2003.

Hanbali, F., Hauck, E.F., McGinnis, M.R., Nauta, H.J.W., Patterson, J.T. Cerebral phaeohyphomycosis mimicking high grade glioma: report of two cases. Cong. Neurol. Surg., 2004.

Hanbli F., Gloss, D., Maiorello, A.V., Gadre, A., Nauta, H.J.W., Patterson, J.T. Intraoperative CT scan as an adjunct in transoral approaches for craniocervical decompression. Cong. Neurol. Surg., 2004.

Hanbali, F., Gloss, D. Maiorello, A.V., Patterson, J.T., Nauta H.J.W. The argument for intraoperative CT scan. Cong. Neurol. Surg., 2004.

Michael Rhee MD; Eric Chen BS; Ryan Nazar MD; Haring Nauta MD, PhD Normal Perfusion Pressure Breakthrough with Hemangioblastoma Resection. Cong. Neurol Surg. 2015.

Thatikunta M, Eaton J, Nauta H, Neuronavigation for trigeminal rhizotomy
Journal of Neurological Surgery Part B Skull Base 79 (S01) P114

Yusuf MB, Amsbaugh MJ, Burton E, Nelson M, Williams B, Koutourousiou M, Nauta H, Woo S. Increasing time to postoperative stereotactic radiation therapy for patients with resected brain metastases: investigating clinical outcomes and identifying predictors associated with time to initiation. Journal of neuro-oncology 2018/2/1 pp

Invited Lectures

Nauta, HJW; Willis, WD., (Co-Chairs) with Lenz, FD; Jeanmonod, D., *Newer Neurosurgical Approaches to the Treatment of Pain* 8th World Congress on Pain, International Association for the Study of Pain, Meeting in Vancouver, Canada; August 1996.

Nauta, HJW, *Stereotactic Radiosurgery, from Origins to Current Innovations*, Presented at Johannesburg, Durban, and Capetown, South Africa (same lecture, three different sites and dates); July 29, 30, 31, 1996.

Nauta, HJW, *Evolution of Image-Guided Surgery*. Presented at 1st international VectorVision Workshop, Sponsored by the BrainLAB Med. Computersysteme, GmbH, Tegernsee, Bavaria, Germany; Sept. 19, 1996.

Nauta, HJW, *Experiences with Brain Shifting during Image-Guided Surgery* Presented at 1st international VectorVision Workshop, Sponsored by the BrainLAB Med. Computersysteme, GmbH, Tegernsee, Bavaria, Germany; Sept. 19, 1996.

Nauta, HJW, *Components and Requirements for Image-guided Surgery of the Spine*. Presented at 1st international VectorVision Workshop, Sponsored by the BrainLAB Med. Computersysteme, GmbH, Tegernsee, Bavaria, Germany; Sept. 20, 1996.

Nauta, H. J.W., *Image-Guidance in Neurosurgery*. Texas Association of Neurological Surgeons, Annual Meeting in Austin, TX; April 24, 1998.

Nauta, H.J W. *Spinal Dural ArterioVenous Fistulae*. Presented as a part of *Spinal and Dural Arteriovenous Malformations*, H.J.W. Nauta, Moderator. Luncheon

Seminar at Congress of Neurological Surgeons Annual Meeting, Seattle, October 1998

Nauta, H.J.W. *Nerve Growth Factor, Alzheimer's Disease and Pain*. Presented to the Medical Staff, Hospital Al Qassimi, Sharjah, United Arab Emirates, November, 1998

Nauta, H.J.W. Neuronavigation (2- 1 hour lectures) Congresso Neurosurgia del Cono Sur, Buenos Aires, Argentina 1998

Nauta, H.J.W. *A New Dorsal Column Visceral Pain Pathway and Its Surgical Interruption to Treat Abdominal and Pelvic Pain Refractory to Opiate Medication*. Presented to the Medical Staff, Hospital Al Qassimi, Sharjah, United Arab Emirates; November, 1998

Nauta, H.J.W. *Neuronavigation with the BrainLAB system, current status and future directions*. Southern Neurosurgical Society, Annual Meeting, Memphis; May 1999

Nauta, H.J.W. A Summary of the Neurosurgery of Intraspinous Lesions; Intraspinous tumors, AVM and Syringomyelia, and The battered nerve root syndrome; perspectives from the new biotechnology. (2 - 15 minute lectures) Greek Orthopaedic Society, Athens, Greece, April 2001

Nauta, H.J.W. *Problem Focused Neurological Assessment In the Pre/Post Operative Patient*. Texas Association of Perianesthesia Nurses; Houston, TX, September, 2002

Nauta, H.J. Update on chronic lumbar radiculopathy. Special Back Pain Symposium, Valley Regional Medical Center, Brownsville, Texas, May 10, 2003.

Nauta, H.J.W. and Lehman, C. Problem focused neurological assessment and monitoring of the person with spinal cord injury. Annual meeting of the American Association of Spinal Cord Injury Nurses. Las Vegas, NV, Sept. 2003

Nauta, H.J.W. Advances in the surgical treatment of pain. The Houston Surgical Society, Houston, TX, Scheduled meeting, Nov 11, 2003.

Nauta, H.J.W. Surgery for severely disabling, medically intractable psychiatric disorders.
Texas Association of Neurological Surgeon, Annual Meeting, Austin, May 14th, 2004

Nauta, HJW "The surprisingly separate pathways subserving visceral and somatic pain, and how this information can be used to treat patients with intractable visceral pain." University of Louisville, Department of Urology Grand Rounds, August 27, 2013.

Nauta, HJW “Visceral Pain Pathways and Treatment of Pelvic Visceral Pain”
Department of Obstetrics and Gynecology, Grand Rounds Presentation April 10,
2015.

Nauta, HJW. “The Dorsal Columns Revisited” lecture presented at the Ken Winston
retirement Festschrift celebration. Aurora, Colorado, June 2016

Visiting Professorships

Oct 2-4, 2003. University of Virginia Department of Neurosurgery,
With three lectures to the Department and multiple teaching sessions with residents.

January 27-28, 2005 University of Texas Southwestern Medical Center, Dallas

Practical Courses Taught

Interactive Image-Guided Neurosurgery Practical Clinic, Instructor, American
Association of Neurological Surgeons, Annual Meeting, Philadelphia; April 1998.

Frameless Stereotaxy Workshop, A Practical Course. Instructor, Congress of
Neurological Surgeons Annual Meeting, Seattle; October 1998

Neuronavigation Practical Course, Instructor, American Association of Neurological
Surgeons, Annual Meeting, New Orleans; 1999

Interactive Image-Guided Neurosurgery Practical Clinic, Instructor, American
Association of Neurological Surgeons, Annual Meeting, San Francisco; April, 2000.

Frameless Stereotaxy Workshop; A Practical Course. Instructor, Congress of
Neurological Surgeons Annual Meeting, San Antonio; September, 2000.

Intraoperative Computed Tomography (CT) Guided Surgery, Instructor, Texas
Association Neurological Surgeons, Houston, TX, April 2001

Interactive Image Guided Spinal and Cranial Surgery, Instructor, American
Association of Neurological Surgeons, Annual Meeting, Toronto, Canada, April 2001

Image Guided Spinal Navigation, Instructor, Congress of Neurological Surgeons
Annual Meeting, Philadelphia, PA, September 2002

Interactive Image Guided Spinal and Cranial Surgery Practical Clinic, Instructor,
American Association of Neurological Surgeons, Annual Meeting, Chicago, IL, April

2002

Surgical Management of Aneurysms, Instructor, Stroke Course, University of Texas Health Science Center, Houston, 2003

Surgical Management of Stroke, Instructor, Stroke Course, University of Texas Health Science Center, Houston, 2003