

CURRICULUM VITAE

NAME: **Arnold B. Vardiman, M.D., F.A.A.N.S., F.A.C.S.**

OFFICE ADDRESS: Neurosurgical Associates of San Antonio, P.A.
V. Benson Medical Office Building
1139 East Sonterra Blvd, Suite 301
San Antonio, TX 78258
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Phone: (210) 477-1956
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BIRTH DATE: November 9, 1962

BIRTHPLACE: Dallas, Texas

LICENSURE: Texas License #H9010, February 22, 1991

CERTIFICATION: The American Board of Neurological Surgery
May 28, 1999, Certificate #99061
Maintenance of Certification Participant

ACADEMIC APPOINTMENTS:

Clinical Assistant Professor
Department of Neurosurgery
University of Texas Health Science Center
San Antonio, TX
2006 to present

HOSPITAL AFFILIATIONS:

Southwest Texas Methodist Hospital
Methodist Specialty & Transplant Hospital
Metropolitan Methodist Hospital
St. Luke's Baptist Hospital
North Central Baptist Hospital
Methodist Stone Oak Hospital
Christus Santa Rosa Hospital
Marc ASC
Legent Orthopedic and Spine Hospital

ORGANIZATIONS: American Association of Neurological Surgeons
Congress of Neurological Surgeons
Texas Association of Neurological Surgeons
American College of Surgeons
North American Spine Society

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Texas Medical Association
Bexar County Medical Society

SPECIAL TRAINING
CERTIFICATIONS:
Cranium

Globus Excelcius Robotics and Navigational Platforms – Spine and

Medtronic Mazor X Surgical Robotics and Navigation Platforms

Leksell Gamma Knife Training
University of Pittsburgh Medical Center, Pittsburgh, PA

Leksell Gamma Knife Perfexion
Southwest Texas Methodist Hospital
San Antonio, TX
August 7-8, 2010

Program

Globus Medical Secure-C Cervical Artificial Disc Surgeon Training

February 25, 2013

Synthes Artificial Cervical Disc Training
February 25, 2013

Medtronic Prestige Artificial Cervical Disc Training

Endoscopic Techniques in Neurosurgery, Aesculap Academy,
January 21-22, 2005

Charite Artificial Disc, March 17, 2005

Operative Laser Certification

GRADUATE
EDUCATION:

University of Texas Southwestern Medical School, Dallas, TX
Degree: Doctor of Medicine, 1989

INTERNSHIP:

General Surgery
Parkland Memorial Hospital, Dallas, TX 1989-1990

RESIDENCY:

Neurological Surgery
University of Texas Southwestern Medical Center
Dallas, TX 1990-1995
Duke Samson, M.D. (Chairman-Emeritus)

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H. Hunt Batjer, M.D. (Chairman)

SPECIALTY
TRAINING:

Instrumentation of Adult Spine
Barrow Neurologic Institute, Phoenix, AZ 1993-1994
Volker Sonntag, M.D.

UNDERGRADUATE
EDUCATION:

St. Mary's University, San Antonio, TX
Degree: BA Biology, 1985

HONORARY
SOCIETY:

Alpha Omega Alpha, University of Texas Southwestern
Summa Cum Laude, St. Mary's University
Delta Epsilon Sigma Honor Society, St. Mary's University
Academic Scholarship (1984-1985), St. Mary's University
Presidential Ambassador (1984-1985), St. Mary's University
Dean's List, St. Mary's University
Who's Who American Universities and Colleges

HONORARY
AWARDS:

Best San Antonio Doctors, 2020, Featured in San Antonio Scene
Magazine
Top Doctors, 2019, Featured in Texas Monthly
Top Doctors, Castle Connolly, 2020, 2019; 2007-2016
Texas Super Doctors, featured in Texas Monthly Magazine, 2008-
2018
Outstanding Physician, Hospital-Based, 2017, San Antonio Business
Journal
America's Most Honored Professionals 2016, The American Registry
Compassionate Doctor Recognition, Patients' Choice, 2010-2016
Best Doctors in America, 2008-2013; 2015;2016
Patients' Choice Award 2015, Vitals
America's Top Surgeons, 2014
Best Doctors in San Antonio, 2008-2013

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RESEARCH

INTERESTS: (CURRENT) Spinal and Intracranial Robotics – Hardware and Staffing- Workflow and Applications

Operating Room Safety, Efficiency, and Workflow

Surgical Procedure Analysis for Active DBS Implantation.

Intraoperative Imaging Techniques for Lead Placement in Deep Brain Stimulation

Mechanisms of Fatigue, Wear, and Failure in Deep Brain Stimulation Implants

Minimally Invasive Techniques for Microvascular Decompression/Trigeminal Neuralgia

Minimally Invasive Techniques for Spinal Intradural Applications

Intraoperative Angiography for Intracranial Aneurysm Surgery

Motion-Sparing Technology for Occipital-Cervical Fusion

Intrathecal Saline Infusion for Intractable Intracranial Hypotension

(UTSWMC) Chilton Fellowship in Biochemistry
May 1985 – August 1986

(UNDERGRADUATE) Isolation of a myositic variant in the Coxsackie B3 Virus
Preceptor: Dr. C. H. Gauntt, University of Texas Health Science Center, San Antonio, TX

PRIVATE PRACTICE: Arnold B. Vardiman, M.D.
4410 Medical Drive, Suite 600
San Antonio, TX, July 1, 1995 – June 30, 1998

Neurosurgical Associates of San Antonio, P.A.
4410 Medical Drive, Suite 610
San Antonio, TX, July 1, 1998 to present

STAFF

APPOINTMENTS: Chief, Department of Neurosurgery

Southwest Texas Methodist Hospital
2004-2006

TEACHING
APPOINTMENTS:

Instructor, Medtronic Mazor Spinal Robotics
Visional Success Program
Visitors from the following locations:
Denver, Colorado

Instructor, Medtronic Visiting Surgeon Program, Physicians trained
from following locations:

Kansas University	Houston, Texas
College Station, Texas	Weslaco, Texas
Corpus Christi, Texas	Baytown, Texas
University of Kansas	Englewood, Colorado
Albuquerque, New Mexico	Tyler, Texas
Colorado Springs, Colorado	Omaha, Nebraska
St. Clairsville, Ohio	El Paso, Texas
Austin, Texas	Virginia Tech, Roanoke, Virginia
Kansas City, Kansas	Temple, Texas
Jacksonville, Florida	Lubbock, Texas
SAMMC Medical Center	Australia & Canada

Instructor, Globus Sugical Robotics, Visional Success Program
Visitors From:
Rome, Italy
Arkansas
California

Faculty, PRL DBS Training, November 18, 2011

Instructor, Deep Brain Stimulation, Visiting Surgeons Program,
Medtronic

Instructor, Minimally Invasive Spine Surgery, Visiting Surgeons
Program, Medtronic

Instructor, Neurosurgery Board Review Course
The Osler Institute
Houston, TX – November 9-11, 2003

Instructor, Neurosurgery Board Review Course
The Osler Institute
Houston, TX – November 18, 2002

Faculty, “Minimal Access Spinal Technologies Hands-on-Lab”
Medtronic Sofamor Danek
Satellite Training Center and Southwest Texas Methodist Hospital
San Antonio, TX – May 4, 2002

Instructor, Neurosurgery Board Review Course
The Osler Institute
Houston, TX – November 2001

Instructor, Neurosurgery Board Review Course
Congress of Neurological Surgeons Meeting
San Diego, CA – September 30, 2001

METRx System, Current Concepts in Minimally Invasive
Discectomy, Memphis, TN, October 2000.

Instructor, Neurosurgery Board Review Course
Congress of Neurological Surgeons Meeting
San Antonio, TX – September 23 & 24, 2000

Instructor, Posterior Cervical Spine Stabilization Workshop,
Joint Section on Disorders of the Spine and Peripheral Nerves,
February 1994

Part-time Faculty, Department of Biology,
Laboratory Teaching Assistant-General Biology, Physiology, 1984

PUBLICATIONS:

Siddiqui MI, Wallace DJ, Salazar LM, Vardiman AB
Robot-Assisted Pedicle Screw Placement: Learning Curve
Experience
ScienceDirect World Neurosurgery
Volume 130, October 2019

Siddiqui MI, Wallace DJ, Salazar LM, **Vardiman AB.**
Robot-assisted pedicle screw placement is safe and accurate in both
experienced and supervised, in-training surgeons.
Submitted to Neurosurgery May 2019
Wallace DJ, Siddiqui MI, Salazar LM, **Vardiman AB.** An Economic
Analysis of the Transition to Robot-assisted Spine Surgery: A Single
Institution Experience in Costs, Readmissions, and Complications of
the first 120 Consecutive Cases. Submitted to The Spine Journal
April 2019

Booher G, **Vardiman AB**. Navigated robotic assisted thoracic pedicle screw placement for metastatic renal cell carcinoma. *Neurosurgical Focus*. 2018;45(videosuppl1):V5.
doi: 10.3171/2018.7.FocusVid.18121

Deshmukh V, **Vardiman AB**, Morgan, Jr., HW. Nonunion. *Spine Surgery: Techniques, Complication Avoidance, and Management* (2nd ed), Chapter 157, 2005.

Vardiman AB, Dickman CA, Sonntag VKHS, Spetzler RF. Cervical myelopathy secondary to epidural venous varices treated with sigmoid sinus to internal jugular vein bypass. *BNI Quarterly*.

D'Alise MD, Benzel EC, Hart BL, **Vardiman AB**. Evaluation of the cervical spine following trauma. *Spine Surgery*, Chapter 51 A Benzel E (ed). Churchill Livingstone 1997.

Vardiman AB, Morgan H, D'Alise. Nonunion: Prevention and Management. *Spine Surgery*. Chapter 97 A Benzel E (ed). Churchill Livingstone 1997.

Vardiman AB, Dickman CA, Sonntag VKHS. Anterior retropharyngeal approach to the craniovertebral junction. *Surgery of the Craniovertebral Junction*, (eds) Dickman CA, Sonntag VKHS, Spetzler RF. Thieme 1997.

Vardiman AB, Dickman CA, Sonntag VKHS. Thoracic Spine Instrumentation. *Techniques in Neurosurgery* Vol. 1 No. 4 p240-256 1996.

D'Alise MD, **Vardiman AB**, Kopitnik TA, Batjer HH. External Carotid-to-middle-cerebral bypass in the treatment of complex internal carotid injury. *The Journal of Trauma: Injury Infection and Critical Care* Vol. 40 No. 3 p452-455 March 1996.

Sonntag VKHS, **Vardiman AB**. Anterior Odontoid Screw Fixation. *Principles of Spinal Surgery*. p1039-1050 (eds) Arnold Menendez, Volker Sonntag. McGraw Hill 1996.

Vardiman AB, Kopitnik TA, Purdy PD, Batjer HH, Samson DS. Treatment of traumatic arterial vasospasm with intra-arterial papaverine infusion: A case report. *AJNR* 16:319-321, February 1995.

Vardiman AB, Dickman CA, Sonntag VKHS. The Modified

Anterolateral Retropharyngeal Approach to the Craniovertebral Junction: Anatomical and Practical Considerations. BNI Quarterly Vol. 10 No. 3 p25-34 1994.

Vardiman AB. Neurotrauma. The Parkland Trauma Handbook. P87-97 (ed) Miguel A. Lopez-Viego, Mosby 1993.

Vardiman AB, MacDonald PC, Casey LM, Cotam LG. Dehydroisoandrosterone therapeutics: Inhibition of prostaglandin H2 synthase activity in mouse kidney by dehydroisoandrosterone feeding. Abstract, Twenty-Fifth Annual Southwestern Medical Student Research Forum, 1986.

McCarter R, McGee J, Witherspoon S, Gauntt CJ, **Vardiman AB.** Effects of viral infection on the contraction of the diaphragm in mice. Proceedings of the Society for Experimental Biology and Medicine 182:308-314, 1986.

ABSTRACTS/
POSTERS:

Vardiman AB, “Minimally Invasive Sacroiliac Joint Fusion Using a Novel Hydroxyapatite-Coated Screw: 2 year Clinical and Radiographic Outcomes”
Globus Research Publications

Wallace DJ, Siddiqui MI, Salazar LM, **Vardiman AB,** “Robot-assisted spine surgery decreases hospitalization costs: An economic analysis of the first 120 consecutive patients.” Submitted to Eurospine-Helsinki, Finland October 2019.

Wallace DJ, **Vardiman AB,** et al. “Quantitative analysis of the learning cue for navigated robotic-assisted pedicle screw placement: planned versus actual screw placement.” International Society for the Study of the Lumbar Spine-Kyoto, Japan, June 2019. Poster presentation.

Wallace DJ, **Vardiman AB,** et al. “Progressive pedicle screw accuracy in clinical utilization of navigated-robot-assisted spine surgery.” Global Spine Congress-Toronto, Canada, May 2019. Poster presentation.

Wallace DJ, **Vardiman AB,** et al. “Progressive pedicle screw accuracy in clinical utilization of navigated-robot-assisted spine surgery.” International Society for the Advancement of Spine Surgery- Anaheim, California, April 2019. Presenting speaker.

Wallace DJ, **Vardiman AB**, et al. “Progressive Pedicle screw accuracy in clinical utilization of navigated-robot-assisted spine surgery.” American Association of Neurological Surgeons Annual Scientific Meeting. San Diego, CA, April 2019. Poster Presentation.

Vardiman AB, Dengler, B. “Suspension Suture: Technique to Avoid Hardware Complications in Deep Brain Stimulation Implantation.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Francisco, CA, October 19-23, 2013 (© Finalization)

Vardiman AB, Dengler, B. “Early experience with Intraoperative O-Arm use during DBS surgery.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Francisco, CA, October 19-23, 2013 (© Finalization)

Vardiman AB, Dengler, B. “A potential low frequency source of Post operative wound infections.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Francisco, CA, October 19-23, 2013 (© Finalization)

Vardiman AB, Andrade, N. “Capillary Action: Impact on Deep Brain Stimulation System Integrity.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, Chicago, IL, October 6-10, 2012.

Vardiman AB, “An Internet Based Resource to Facilitate DBS Education.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 15-20, 2007.

Vardiman AB, “Kaizen: A model for continuous improvement in the operating room.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 15-20, 2007.

Vardiman AB, “Single Stage Technique for Deep Brain Stimulation (DBS) and Implantable Pulse Generator (IPG) Placement.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 15-20, 2007.

Vardiman AB, Hilton, DL, Fichtel FM. “Minimally Invasive Surgery Using the METRx-MD System: Techniques for Intradural Applications.” Digital Poster, Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 15-20, 2007.

Vardiman AB, Hilton, DL, Fichtel FM. “Same Day Surgery for Intradural Tumors: A report of 3 cases.” Digital Poster, Congress of

Neurological Surgeons Annual Meeting, San Diego, CA, September 15-20, 2007.

Hilton DL, **Vardiman AB**. Posterior Cervical Foraminotomy with Three Dimensional Visualization with Minimally Invasive Tubular Retractor (MITR), Poster Presentation, AANS/CNS Section on Disorders of Spine and Peripheral Nerves Annual Meeting, Tampa, FL, March 5-8, 2003.

Hilton DL, **Vardiman AB**. Recurrent Outpatient Lumbar Disc Surgery Using Minimally Invasive Tubular Retractor (MITR), Poster Presentation, AANS/CNS Section on Disorders of Spine and Peripheral Nerves Annual Meeting, Tampa, FL, March 5-8, 2003.

Vardiman AB, Hilton DL. Minimally Invasive Techniques for Intradural Applications, Oral and Poster Presentation, AANS/CNS Section on Disorders of Spine and Peripheral Nerves Annual Meeting, Tampa, FL, March 5-8, 2003.

Vardiman AB, Hilton DL. Minimally Invasive Approach for Far Lateral Lumbar Disc Herniations Using the METRx-MD System, Poster Presentation, AANS/CNS Section on Disorders of Spine and Peripheral Nerves Annual Meeting, Tampa, FL, March 5-8, 2003.

Krueger WO, Kingman TA, **Vardiman AB**, Rafa J. CSF leaks following translabyrinthine resection of acoustic neuromas. Presentation at North American Skull Base Society Meeting, March 1996.

Vardiman AB. A Comparison of the Transoral and Anterolateral Retropharyngeal Approaches to the Craniovertebral Junction. Poster Presentation at Annual Meeting of CNS, October 1994.

Ronderos, JK, Knightly JJ, **Vardiman AB**, Dickman CA, Sonntag VKHS. Pull Out Strength of Tapped Versus Untapped Cortical Screws in the Cervical Spine. Poster Presentation at AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, February 1994.

Knightly JJ, Dickman CA, **Vardiman AB**, Ronderos J, Sonntag VKHS. Treatment Preferences for Type II Odontoid Fractures. Poster Presentation at AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, February 1994.

Knightly JJ, Dickman CA, **Vardiman AB**, Ronderos J, Sonntag VKHS. Roller Coaster Induced Hyperflexion Injury: The Domino

Effect After Treatment of an Upper Cervical Kyphosis. Poster Presentation at AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, February 1994.

Vardiman AB, D'Alise MD, Kopitnik TA, Giller CA, Batjer HH. Vertebral Artery Injuries Associated with Cervical Fractures Involving the Foramen Transversarium. Poster Presentation at AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, February 1994.

INVITED SPEAKER: Navigated Robotic Assistance Improves Pedicle Screw Accuracy in Minimally Invasive Surgery of the Lumbosacral Spine: 600 Pedicle Screws In a Single Institution: Abstract No. 478. Global Spine Congress- Rio De Janeiro, Brazil, 2020

Globus Spine Surgical Robotics.
Houston Methodist
Robotics in Neurosurgery Symposium
August 9, 2019

Grand Rounds at UTHSCSA
Spinal Surgical Robotics
March 1, 2019

Vardiman AB, MERC Robotic Spine Symposium
Audubon, PA
October 27, 2018

Vardiman AB, Update on Movement Disorders Surgery
Peterson Regional Medical Center
CME Luncheon
April 7, 2015

Vardiman AB, Davis Phinney Foundation
Surgery for Movement Disorders Update
MD Panel Discussion
San Antonio, TX,
November 14, 2015

Vardiman AB, Parkinson's Disease Deep Brain Stimulator Patient Reunion Event
Oak Hills Country Club, San Antonio, TX

April 8, 2015

Vardiman AB, Deep Brain Stimulation in the management of movement disorders
San Antonio Moves
Community Research Education and Events for Movement Disorders
January 4, 2015

Vardiman AB, Historical Lessons for Current Applications for Functional Neurosurgery
Texas Association of Neurological Surgeons 2014 Annual Meeting
March 2, 2014

Vardiman AB, Update on Surgery for Movement Disorders, Fifth Annual Parkinson Disease Symposium
New Braunfels, TX, October 5, 2013

Vardiman AB, Treatment of Movement Disorders - Past and Present, Healthsouth RIOSA Neurorehabilitation Conference,
Omni, May 18, 2013

Vardiman AB, Building and Maintaining a Successful DBS Program, Spine Business Summit, Barrow Neurological Institute, Phoenix, AZ, January 30-31, 2013

Vardiman AB. Sports Related Concussion, Identification and Management. NFL-Army, Army All-Star Game Coaches Educational Meeting, Marriott Riverwalk, San Antonio, TX, January 4, 2013.

Vardiman AB. Deep Brain Stimulation, Clinical Experience and Lessons Learned, Neurology/Neurosurgery Grand Rounds, University of Texas Health Science Center, San Antonio, TX, November 30, 2012.

Vardiman AB. Brain and Spine Conference, NW Marriott, San Antonio, TX, October 2, 2011.

Vardiman AB, Alvarez MD. APDA Walk-A-Thon, McAllister Park and AQTS, Boot Camp at McKenna Events Center, San Antonio, TX, May 14, 2011.

Vardiman AB. Parkinson's Public Forum, San Antonio, TX, March 1, 2008.

Vardiman AB. Grand Rounds, Craniocervical Junction Topics

Methodist Healthcare System, Department of Orthopaedics
San Antonio, TX, September 27, 2006.

Vardiman AB. Learning About Essential Tremor: Diagnosis and Treatment Options, International Essential Tremor Foundation, Austin, TX, October 22, 2005.

Vardiman AB. Minimally Invasive Intradural Surgery, Texas Association of Neurological Surgeons, Grapevine, TX, May 14, 2005.

Vardiman AB. DBS for Parkinson's Disease Conference, Corpus Christi, TX, July 16, 2004.

Vardiman AB. Texas Association of Neurological Surgeons, Surgery for Movement Disorders, Austin, TX, May 14, 2004.

Vardiman AB. Internal Essential Tremor Foundation Conference, San Antonio, TX, January 24, 2004.

Vardiman AB. Alamo Area Parkinson's Support Group, Tenth Annual Parkinson's Disease Symposium, San Antonio, TX, June 22, 2002.

Vardiman AB. Cerebral Aneurysm Surgery: Complication Avoidance and Management, Congress of Neurological Surgeons Annual Meeting, San Antonio, TX, September 26, 2000.

Vardiman AB. Deep Brain Stimulation: The San Antonio Experience. Texas Association of Neurosurgical Surgeons Meeting, San Antonio, TX, May 2000.

Vardiman AB, Dickman CA, Sonntag VKHS. A Comparison of the Transoral and Anterolateral Retropharyngeal Approaches to the Craniovertebral Junction. Rocky Mountain Neurosurgical Society Meeting, June 16, 1994.

Vardiman AB. Dynamic Flexion Extension Evaluation of the Cervical Spine. The 45th Annual Meeting of the Arizona Society of Radiologic Technologist, Phoenix, AZ, June 5, 1994.