

PATRICK SHIH, M.D.

1 2 1 2 1 R I C H M O N D A V E N U E
S U I T E 1 0 4
H O U S T O N , T X 7 7 0 8 2
(8 3 2) 5 2 9 - 7 2 8 9
n e u r o b r a i n s p i n e @ g m a i l . c o m

PERSONAL DATA

Date of Birth: January 21, 1978
Place of Birth: Albuquerque, New Mexico
Citizenship: United States of America
Marital Status: Married

EDUCATION

1996-2000	Texas A&M University <i>Bachelor of Science in Biomedical Engineering, Summa Cum Laude</i>	College Station, TX
2000-2004	University of Texas Southwestern Medical School <i>Doctor of Medicine</i>	Dallas, TX

POSTGRADUATE TRAINING

2004-2005	Albert Einstein College of Medicine at Beth Israel Medical Center <i>General Surgery Internship</i>	New York, NY
2005-2011	McGaw Medical Center of Northwestern University <i>Neurological Surgery Residency</i>	Chicago, IL
2009-2010	McGaw Medical Center of Northwestern University <i>Minimally Invasive Spine Surgery Fellowship</i>	Chicago, IL

ACADEMIC APPOINTMENTS

2010-2011	Northwestern University <i>Instructor</i>	Chicago, IL
-----------	--	-------------

HOSPITAL APPOINTMENTS

2011-Present	Memorial Hermann Southwest Hospital <i>Staff Physician</i>	Houston, TX
2011-2014	St. Lukes Sugar Land Hospital <i>Staff Physician</i>	Sugar Land, TX
2012-Present	Houston Methodist Sugar Land Hospital <i>Staff Physician</i>	Sugar Land, TX
2012-Present	Houston Methodist West Houston Hospital <i>Staff Physician</i>	Houston, TX
2012-2014	Christus St. Catherine Hospital	Katy, TX

	<i>Staff Physician</i>	
2012-Present	West Houston Medical Center	Houston, TX
	<i>Staff Physician</i>	
2012-Present	North Cypress Medical Center	Cypress, TX
	<i>Staff Physician</i>	
2013-Present	Methodist Willowbrook	Houston, TX
	<i>Staff Physician</i>	
2014-Present	Tomball Regional Medical Center	Tomball, TX
	<i>Staff Physician</i>	
2015-Present	Clear Lake Regional Medical Center	Webster, TX
	<i>Staff Physician</i>	
2016-Present	St. David's South Austin Medical Center	Austin, TX
	<i>Staff Physician</i>	
2016-Present	Houston Northwest Medical Center	Houston, TX
	<i>Staff Physician</i>	

NON-ACADEMIC APPOINTMENTS

2011-2012	Memorial Hermann Southwest Hospital	Houston, TX
	<i>Trauma Committee</i>	
2016-Present	West Houston Medical Center	Sugar Land, TX
	<i>Stroke Committee</i>	

BOARD CERTIFICATION

Diplomat, American Board of Neurological Surgeons 5/2015

EXAMINATIONS

United States Medical Licensing Examination (USMLE) Step 1 Passed 7/2002
United States Medical Licensing Examination (USMLE) Step 2 Passed 4/2004
United States Medical Licensing Examination (USMLE) Step 3 Passed 8/2006
American Board of Neurological Surgeons Primary Examination – Passed 3/2008
American Board of Neurological Surgeons Oral Examination – Passed 5/2015

MEDICAL LICENSES

Illinois – Physician License #036124805 (Expired July 31, 2011)
Texas – Physician License #N8061 (Active)

INVITED COURSE FACULTY

American Association of Neurological Surgeons Goodman Oral Board Preparation Course
Spine, May 5-7, 2017. Invited course faculty. Houston, TX.

EDITORIAL ACTIVITIES

Ad Hoc Reviewer for *Minimally Invasive Surgery*

BOOK CHAPTERS

Shih P. and R.G. Fessler. Disorders of the Spinal Cord – Tumors/Syringomyelia/Vascular

Malformations/Intradural Infections. In Rao R and Smuck M(eds): *Orthopaedic Knowledge Update: Spine, 4th Edition*, Rosemont, IL, American Academy of Orthopaedic Surgeons, 2011.

Shih P. and R.G. Fessler. Spinal Cord Trauma. In Daroff RB, Fenichel G, Jankovic J, and Mazziotta JC(eds): *Neurology in Clinical Practice, 6th Edition*, Philadelphia, Elsevier, 2012.

Slimack N.P., P. Shih, and R.G. Fessler. Different Pathologies and Patient Selection. In Korge A and Hartl R (eds): *Minimally Invasive Spine Surgery – Techniques, Evidence, and Controversies*, Dübendorf, Switzerland, AOSpine, 2012.

Shih P., P. Lee., and R.G. Fessler. Minimally Invasive Tubular Lumbar Discectomy. In Eck JC and Vacarro AR (eds): *Surgical Atlas of Spinal Operations*, New Dehli, India, Jaypee Brothers, 2013.

JOURNAL PUBLICATIONS

Everett W.N., P. Shih, and J.D. Humphrey. “A bi-plane video-based system for studying the mechanics of arterial bifurcations.” *Experimental Mechanics* 2005;45(4): 377-382.

Mindea S.A., P. Shih, and J.K. Song. “Recombinant human bone morphogenetic protein-2-induced radiculitis in elective minimally invasive transforaminal lumbar interbody fusions: a series review.” *Spine* 2009;34(14):1480-1484.

Shih P., B.P. Yang, H.H. Batjer, and J.C. Liu. “The surgical management of superficial sidersosis.” *The Spine Journal* 2009;9(8):e16-19.

Shih P., P.E. Simon, J.C. Liu, and H.J. Pelzer. “Osteophyte formation following multilevel anterior cervical discectomy and fusion causing a delayed presentation of functional dysphagia.” *The Spine Journal* 2010;10(7)e1-5.

Shih P., R.J. Halpin, A. Ganju, J.C. Liu and T.R. Koski. “Management of recurrent adult tethered cord syndrome.” *Neurosurgical Focus* 2010; 29(1):e5.

Shih P., T. Pinnaduwege, L.S. Hu, and R.F. Spetzler. “A pediatric patient with a dissecting thrombotic anterior choroidal artery aneurysm: A case report.” *Neurosurgery* 2010;67(2):E518.

Shih P., N.P. Slimack., and R.G. Fessler. “Cervical microendoscopic discectomy and decompression.” *Seminars in Spine Surgery* 2011;23(1):14-19.

Shih P., T.R. Smith, R.G. Fessler, and J.K. Song. “Minimally invasive discectomy for the treatment of disc herniation causing cauda equina syndrome: a series review.” *Journal of Clinical Neuroscience* 2011;18(9)1219-1223.

Shih P., A.P. Wong, T.R. Smith, A.I. Lee, and R.G. Fessler. “Comparison of complications between open and microendoscopic lumbr decompression.” *Journal of Clinical Neuroscience* 2011;18(10)1360-1364.

Shih P., N.P. Slimack, A. Roy, R.G. Fessler, and T.R. Koski. “Abdominal complications following posterior spinal fusion in patients with previous abdominal surgeries.” *Neurosurgical Focus* 2011;31(4)E16.

Wong A.P., P. Shih, T.R. Smith, N.P. Slimack, N.S. Dahdaleh, S.G. Aoun, T.Y. El Ahmadieh, Z.A. Smith, J.K. Scheer, T.R. Koski, J.C. Liu, and R.G. Fessler. “Comparison of symptomatic cerebral spinal fluid leak between patients undergoing minimally invasive versus open lumbar foraminotomy, discectomy, or laminectomy.” *World Neurosurgery* 2013;(13)S1878-8750.

Samatzis D., C.G. Gillis, P. Shih, J.E. O’Toole, and R.G. Fessler. “Intramedullary Spinal Cord Tumors: Part I – Epidemiology, Pathophysiology, and Diagnosis.” *Global Spine Journal* 2015; [Online] Available at DOI: 10.1055/s-0035-1549029 (Accessed May 31, 2015).

Samatzis D., C.G. Gillis, P. Shih, J.E. O’Toole, and R.G. Fessler. “Intramedullary Spinal Cord Tumors: Part II – Management Options and Outcomes.” *Global Spine Journal* 2016; [Online] Available at DOI: 10.1055/s-0035-1550086. (Accessed August 31, 2016).

BOOK REVIEWS

Shih P. Book Review of *Alternative Bearing Surfaces in Total Joint Replacement*, edited by J.J. Jacobs and T.L. Craig. *Annals of Biomedical Engineering* 2000; 28(6):700.

ORAL PRESENTATIONS

Shih P., J.M. Pickard, and J.D. Humphrey. “Characterization of Material Properties of Passive State 16 and Stage 18 Chick Hearts Using Multi-Axial Tests.” Oral presentation at Texas A&M Undergraduate Summer Research Programs Symposium. July 28, 1998. College Station, TX.

Shih P. “Effects of Mechanical Forces on Skeletal And Cardiac Muscle Cells.” Oral presentation at Duke University Center for Emerging Cardiovascular Technologies Research Experience for Undergraduates Symposium. July 29, 1999. Durham, NC.

Shih P. “Pediatric cerebral aneurysms.” Oral presentation at Barrow Neurological Institute Grand Rounds at Saint Joseph’s Hospital. August 29, 2003. Phoenix, AZ.

Shih P. “Pediatric spine and spinal cord injuries.” Oral presentation at Northwestern University Department of Neurosurgery Academic Day at Children’s Memorial Hospital. October 20, 2006. Chicago, IL.

Shih P. “Safety profile of bone morphogenetic protein in spinal surgery.” Oral presentation at Northwestern University Department of Neurosurgery Academic Day at Northwestern Memorial Hospital. February 26, 2010. Chicago, IL.

Shih P. “Historical perspective of pituitary surgery.” Oral presentation at Northwestern University Department of Neurosurgery Academic Day at Northwestern Memorial Hospital. June 24, 2011. Chicago, IL.

Shih P. “Neurosurgical advances for treatment of hemorrhagic strokes.” Oral presentation at EMS Stroke Conference: Rapid Response to Brain Attack at Methodist West Houston Hospital. March 29, 2012. Houston, TX.

Wong A.P., P. Shih, T.R. Smith, N.P. Slimack, N.S. Dahdaleh, S.G. Aoun, T.Y. El-Ahmadieh, Z.A. Smith, T.R. Koski, J.C. Liu, and R.G. Fessler. “Comparison of Symptomatic Cerebral Spinal Fluid (CSF) Leak Between Patients Undergoing Minimally Invasive Versus Open Lumbar Foraminotomy, Discectomy, or Laminectomy.” Oral presentation at Spine Technology and Educational Group Organization. 10th Annual Symposium “State of Spine

Surgery: A Think Tank”. June 22, 2013. Los Cabo, Mexico.

Shih P. and J.R. Bailey. “Neurosurgery and Plastic Surgery – Higher Level of Care” Oral presentation at HCA America Gulf Coast Division Emergency Medicine Meeting at HCA Gulf Coast Division Office. October 22, 2013. Houston, TX.

Shih P. “Neurosurgical advances for treatment of hemorrhagic strokes.” Oral presentation at Citizens Medical Center Stroke Committee at Citizens Medical Center. May 13, 2014. Victoria, TX.

Shih P. “Neurosurgical advances for treatment of hemorrhagic strokes.” Oral presentation at Surviving Stroke Conference at Houston . August 31, 2016. Houston, TX.

Shih P. “Spinal Deformities.” Continuing Medical Education presentation at West Houston Medical Center. September 28, 2016. Houston, TX.

POSTER PRESENTATIONS

Shih P., S. Blackburn, J.A. White and D.P. Chason. “Characterization of fluid flow properties at the basilar apex.” Poster presentation at the 24th Annual International Conference of the Engineering in Medicine and Biology Society and Annual Fall Meeting of the Biomedical Engineering Society. October 23-26, 2002. Houston, TX

Shih P. “Safety profile of bone morphogenetic protein in spinal surgery.” Oral presentation at Northwestern University Department of Neurosurgery Academic Day at Northwestern Memorial Hospital. February 26, 2010. Chicago, IL.

Fessler R.G., P. Shih and T.R. Smith. “Comparison of complications between open and microendoscopic lumbr decompression.” Poster presentation at the Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves 27th Annual Meeting. March 9-12, 2011. Phoenix, AZ.

Shih P., A. Wong, T.R. Smith, A.I. Lee, and R.G. Fessler. “Comparison of complications between open and microendoscopic lumbr decompression.” Poster presentation at the 2011 American Association of Neurological Surgeons Annual Scientific Meeting. April 9-13, 2011. Denver, CO.

Lee A.I., P. Shih, C.A. Wong, and J.C. Liu. “Posterior reversible encephalopathy syndrome in a puerperium requiring decompressive craniectomy.” Poster presentation at the Society of Obstetric Anesthesia and Peritology 43rd Annual Meeting. April 13-17, 2011. Henderson, NV.

Slimack N.P., P. Shih, T.R. Smith, J.C. Liu., A.P. Wong, R.G. Fessler, T.R. Koski. “Incidence and outcome of CSF leak in open vs. minimally invasive lumbar surgery.” E-Poster presentation at 19th International Meeting on Advanced Spine Techniques. July 18-21, 2012. Istanbul, Turkey.

Wong A.P., P. Shih, T.R. Smith, N.P. Slimack, N.S. Dahdaleh, S. Oh, S.G. Aoun, T.Y. Ahmadi, Z.A. Smith, T.R. Koski, J.C. Liu, R.G. Fessler. “ Comparison of Symptomatic Cerebral Spinal Fluid (CSF) Leak Between Patients Undergoing Minimally Invasive Versus Open Lumbar Foraminotomy, Discectomy or Laminectomy.” Poster presentation at Lumbar

Spine Research Society. April 12, 2013. Chicago, IL.

HONORS AND AWARDS

UT Southwestern The Genome Science and Technology Center Student Intern, 1997
Texas A&M Academic Incentive Award Scholarship, 1997
Texas A&M Mendon B. Krischer Academic Excellence Award Scholarship, 1998-1999
Texas A&M Engineering Experiment Station Undergraduate Summer Research Grant, 1998
Texas A&M Peter Chaplinksy Memorial Scholarship, 1998
Lockheed Martin Vought Management Association College University Scholarship, 1998
Duke University Center for Emerging Cardiovascular Technologies Research Experience for Undergraduates Fellowship Grant, 1999
Dean's List 1999-2000
UT Southwestern Medical Student Research Program Grant, 2001
Society of Experimental Mechanics Miklos Hetenyi Award, 2005
Northwestern University Best Resident Case Report, 2011
H Texas Magazine: Houston's Top Doctors, 2016

PROFESSIONAL ORGANIZATIONS

American Association of Neurological Surgeons, 2005 – Present
Congress of Neurological Surgeons, 2005-2016
Tau Beta Pi National Engineering Honor Society, 1998