

CURRICULUM VITAE ZIYA L. GOKASLAN, M.D. F.A.C.S.

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Google Scholar		
	All	Since 2015
Citations	25331	12652
h-index	79	52
i10-index	358	298
Publications	502	165

EDUCATION

Medical School Istanbul Faculty of Medicine (Valedictorian)

University of Istanbul, Turkey

M.D., 1983

POSTGRADUATE TRAINING

Fellowship Post-Doctoral Clinical Research

Department of Psychiatry, Sleep Disorder & Research Center

Baylor College of Medicine, Houston, TX

1984-1985

Internship General Surgery

Baylor College of Medicine, Houston, TX

1985-1986

Fellowship Clinical Research, Neurotraumatology

Baylor College of Medicine, Houston, TX

1986-1988

Residency Neurosurgery

Baylor College of Medicine, Houston, TX

1988-1993

Fellowship Clinical Spinal Surgery

New York University Medical Center, New York, NY

1993-1994

POSTGRADUATE HONORS AND AWARDS

American Board of Neurological Surgery, Scholars in Residency, 2017 - Present

North American Spine Society Leon Wiltse Award, 2014

Congress of Neurological Surgeons Resident Trauma Research Award, 1987

Congress of Neurological Surgeons AME Spine Fellowship Award, 1993

Best Doctors in America, 1999, 2005, 2006, 2008, 2010, 2011, 2012

Fellow of American College of Surgeons, 1999

Faculty Achievement Award in Patient Care, UT M.D. Anderson Cancer Center, 2001

Donlin M. Long Professor of Neurosurgery, Johns Hopkins University, 2003

Julius Stoll Professor of Neurosurgery, Warren Alpert Medical School of Brown University, Lifespan, 2015-Present

Richard J. Ostenasek, Jr. Faculty Award, Johns Hopkins University, 2003, 2015

Elected Member, Society of Neurological Surgeons, 2004

Elected Member, American Academy of Neurosurgeons, 2013-present

Elected Member, World Academy of Neurosurgeons, 2014-present

Baltimore Magazine Top Doctors, 2007

America's Top Doctors, American Registry, 2008 - 2014

Patient's Choice Award, One of Maryland's Favorite Physicians, 2010

Compassionate Doctor Award, One of the Most Compassionate Doctors of America, 2010

Patient's Choice Award, One of Maryland's Favorite Physicians, 2011

Compassionate Doctor Award, One of the Most Compassionate Doctors of America, 2011

Patient's Choice Award, One of Maryland's Favorite Physicians, 2012

Washington-Baltimore Top Doctors, 2012

Castle Connolly Top Doctors, 2012

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Medical Licensure Texas, License #H7150, 1990

California, License #A049007, 1990 New York, License #192346, 1993 Maryland, License #D0058481, 2002 Rhode Island, License #15002, 2015

Board Certification American Board of Neurological Surgery, 1997

ACADEMIC APPOINTMENTS

Clinical Assistant Professor

of Neurosurgery

Baylor College of Medicine, Department of Neurosurgery, Houston, TX

1994-2002

Assistant Professor of Neurosurgery

 $UT\ M.D.\ Anderson\ Cancer\ Center,\ Department\ of\ Neurosurgery,\ Houston,\ TX$

1994-2000

Associate Professor

of Neurosurgery (tenured)

UT M.D. Anderson Cancer Center, Department of Neurosurgery, Houston, TX

2000-2002

Professor of Neurosurgery, Oncology and Orthopaedic (Surgery Donlin M. Long

Endowed Chair)

Johns Hopkins University School of Medicine, Department of Neurosurgery,

2002-2015

Professor and Chairman of

Neurosurgery

(Julius Stoll, Endowed Chair)

Warren Alpert Medical School of Brown University, Department of Neurosurgery,

2015-Present

HOSPITAL APPOINTMENTS

Chief, Neurosurgery, Clinic Department of Neurosurgery, UT M.D. Anderson Cancer, Houston, TX

1995-1996

Chief, Spinal Oncology Program Department of Neurosurgery, UT M.D. Anderson Cancer Center, Houston, TX

1999-2002

Deputy Chair Department of Neurosurgery, UT M.D. Anderson Cancer, Houston, TX

2000-2002

Vice-Chairman Department of Neurosurgery, Johns Hopkins School of Medicine, Baltimore, MD

2002-2015

Director, Neurosurgical

Spine Program

Department of Neurosurgery, Johns Hopkins School of Medicine, Baltimore, MD

2002-2015

Co-Director Carnegie Center for Surgical Innovation, Johns Hopkins School of Medicine

2014-2015

Neurosurgeon in Chief Rhode Island Hospital and The Miriam Hospital, Providence, RI

2015-Present

HOSPITAL COMMITTEES

Member, Quality Improvement, UT M.D. Anderson Cancer Center- Alternate, 1995-2002

Point of Contact, Disaster Ride-out Team, 1995-2002

Member, Clinical Research Committee, UT M.D. Anderson Cancer Center, 1997-1999

Member, PRS Business Operations & Fees Committee, UT M.D. Anderson Cancer Center, 1998-2002

Member, Pharmacy and Therapeutics Committee, 1998-2001

Vice Chair, Medical Practice Committee, UT M.D. Anderson Cancer Center, 2000-2002

Member, M. D. Anderson Associates Steering Committee, 2000-2001

Member at Large, Executive Committee of Medical Staff, UT M.D. Anderson Cancer Center 2001-2002

Member, CPA Contracting Committee, Johns Hopkins University, Baltimore, MD 2004-2015

Member, Johns Hopkins Medical Staff Conference Committee, 2007-2012

Chair, Johns Hopkins Medical Staff Conference Committee, 2010-2015

Member, Johns Hopkins CPA Contracting Committee, 2007-2015

Member, Johns Hopkins Value Analysis Committee, 2007-2015

Board Member, Lifespan Board of Directors, 2019-present

Member, Lifespan Quality Oversight Committee, 2019-present

UNIVERSITY COMMITTEES

Member, Faculty Senate, UT M.D. Anderson Cancer Center, 1996-2002

Member, Promotions Committee, Division of Surgery, UT M.D. Anderson Cancer Center, 1998-2002

Member, Neuroscience Promotions Committee, JHU, 2002-2015

Member, Johns Hopkins University Promotions Committee, 2002-2015

Member, Johns Hopkins University Policy in Health Affairs, 2003-2015

Director, Johns Hopkins International, Anadolu Medical Center, 2006-2015

Member, Johns Hopkins School of Medicine Admissions Committee, 2007-2015

Member, The Warren Alpert Medical School of Brown University, Admissions Committee 2017-present

Member, Carney Brain Science Institute, Brown University, Executive Committee, 2015-present

MEMBERSHIP IN SOCIETIES

Board Member, AO North America Board of Directors, 2006-2009

Board Member, World Spinal Column Society, 2014-Present

Chairman, AO ASIF Committee on "Tumor, Infection & Osteoporosis," 2000-2006

Chairman, Fellowship & Awards Coordinating Committee of the AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, 2000-2010

Chairman, AO ASIF, North American Education Committee, 2003-Present

Chairman, AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, 2010 – 2011

Chairman, AO Knowledge Forum Steering Committee, 2014-2017

Chairman, Spinal Oncology Study Group 2014-2017

Trustee, AO Foundation Board of Trusteees, 2009-2012

Member, American Medical Association, 1984-2002

Member, Harris County Medical Society, 1986-2002

Member, Houston Neurological Society, 1986-2002

Member, North American Spine Society, 1994-Present

Member, Texas Medical Association, 1995-2002

Member, Texas Association of Neurological Surgeons, 1996-2002

Member, Congress of Neurological Surgeons, 1997-Present

Member, The American Association of Neurological Surgeons, 1998-Present

Member, American College of Surgeons, 1999-Present

Member, Ethics Committee of the North American Spine Society (NASS), 1999-2001

Member, American Society of Clinical Oncology, 2001-Present

Member, North American Spine Society Recognition and Awards Committee, 2001-2004

Member, AO ASIF, North American Education Committee, 2001-2003

Member, Cervical Spine Research Society, 2003-Present

Member, Scoliosis Research Society, 2005-Present

Member, Society of Neurological Surgeons, 2007-Present

Member, Senior Advisory Council to the Executive Committee, AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves, 2008-Present

Member, AO Knowledge Forum Steering Committee, 2017-present

Member, World Academy of Neurological Surgery, 2015-present

Member, American Academy of Neurosurgeons, 2013-present

Member, American Association of Neurological Surgery, Executive Committee, 2010-2011

EDITORIAL ACTIVITIES

Editorial Board Appointments

- 1. Journal of Neurosurgery Spine (Co-Chief Editor) 2012-2013
- 2. Journal of Neurosurgery Spine Editorial Board) 2006-2012
- 3. World Neurosurgery (Spine Section Editor) 2018 Present
- 4. Journal of Spinal Disorders & Techniques, 2001-Present
- 5. The Spine Journal, 2003-present (Associate Editorial Board Member).
- 6. The Journal of Neurosurgery: Spine, 2006-2013
- 7. The European Spine Journal, 2006-Present
- 8. Nature Reviews in Neurology, 2006-Present
- 9. Journal of Surgical Oncology, (Neurooncology, Section Editor) 2008-Present
- 10. World Neurosurgery, 2010-Present
- 11. Frontiers in Surgery, Section in Neurosurgery, 2015-Present

Journal Reviewer

- 1. Neurosurgery (ad hoc reviewer), 1996-present.
- 2. Journal of Neuro-Oncology (ad hoc reviewer), 1997-present.
- 3. Journal of Neurosurgery, Neurosurgical Focus 2001 present.
- 4. Journal of Neurology, Neurosurgery and Psychiatry (ad hoc reviewer), 2001-present.
- 5. Acta Orthopaedica Traumatologica Turcica, 2013-present.

PEER-REVIEWED PUBLICATIONS

- 1. Robertson CS, Narayan RK, **Gokaslan ZL**, Pahwa R, Grossman RG, Caram P Jr, Allen E. Cerebral arteriovenous oxygen difference as an estimate of cerebral blood flow in comatose patients. J Neurosurg. 1989 Feb;70(2): 222-30.
- 2. Robertson CS, Narayan RK, Contant CF, Grossman RG, **Gokaslan ZL**, Pahwa R, Caram P Jr, Bray RS Jr, Sherwood AM. Clinical experience with a continuous monitor of intracranial compliance. J Neurosurg. 1989 Nov;71(5 Pt 1): 673-80.
- 3. Robertson CS, Contant CF, **Gokaslan ZL**, Narayan RK, Grossman RG. Cerebral blood flow, arteriovenous oxygen difference, and outcome in head injured patients. J Neurol Neurosurg Psychiatry. 1992 Jul:55(7): 594-603.
- 4. Mawad ME, Mawad JK, Cartwright J Jr, **Gokaslan ZL**. Long-term histopathologic changes in canine aneurysms embolized with Guglielmi detachable coils. AJNR Am J Neuroradiol. 1995 Jan;16(1):7-13.
- 5. Rao VH, Bridge JA, Neff JR, Schaefer GB, Buehler BA, Viswanatha JK, **Gokaslan ZL**, Pollock RE, Nicolson GL, Yamamoto M, Stetler-Stevenson WG, Sawaya R, Rao JS: Expression of 72-kDa and 92kDa Type IV collagenases from human giant cell tumor of bone. Clin Exp Metastasis 13:420-426, 1995.
- 6. Rao JS, Yamamoto M, Mohaman S, **Gokaslan ZL**, Fuller GN, Stetler-Stevenson WG, Rao VH, Liotta LA, Nicolson GL, Sawaya RE. Expression and localization of 92-kDa type IV collagenase/gelatinase B (MMP-9) in human gliomas. Clin Exp Metastasis. 1996 Jan;14(1):12-8.
- 7. Siyaparvathi M, Yamamoto M, Nicolson GL, Gokaslan ZL, Fuller GN, Liotta LA, Sawaya R, Rao JS. Expression and

- immunohistochemical localization of cathepsin L during the progression of human gliomas. Clin Exp Metastasis. 1996 Jan;14(1):27-34.
- 8. Sawaya RE, Yamamoto M, **Gokaslan ZL**, Wang SW, Mohanam S, Fuller GN, McCutcheon IE, Stetler-Stevenson WG, Nicolson GL, Rao JS. Expression and localization of 72 kDa type IV collagenase (MMP-2) in human malignant gliomas in vivo. Clin Exp Metastasis. 1996 Jan;14(1):35-42.
- 9. Yamamoto M, Mohanam S, Sawaya R, Fuller GN, Seiki M, Sato H, **Gokaslan ZL**, Liotta LA, Nicolson GL, Rao JS. Differential expression of membrane-type matrix metalloproteinase and its correlation with gelatinase A activation in human malignant brain tumors in vivo and in vitro. Cancer Res. 1996 Jan 15;56(2):384-92.
- 10. Chintala SK, Sawaya R, **Gokaslan ZL**, Fuller G, Rao JS. Immunohistochemical localization of extracellular matrix proteins in human glioma, both in vivo and in vitro. Cancer Lett. 1996 Mar 19:101(1):107-14.
- 11. Rao JS, Sawaya R, **Gokaslan ZL**, Yung WK, Goldstein GW, Laterra J. Modulation of serine proteinases and metalloproteinases during morphogenic glial-endothelial interactions. J Neurochem. 1996 Apr;66(4):1657-64.
- 12. Chintala SK, Sawaya R, **Gokaslan ZL**, Rao JS. The effect of type III collagen on migration and invasion of human glioblastoma cell lines in vitro. Cancer Lett. 1996 Apr 19;102(1-2):57-63.
- 13. Sivaparvathi M, Sawaya R, Chintala SK, Go Y, **Gokaslan ZL**, Rao JS. Expression of cathepsin D during the progression of human gliomas. Neurosci Lett. 1996 Apr 26;208(3):171-4.
- 14. Gokaslan ZL. Spine surgery for cancer. Curr Opin Oncol. 1996 May;8(3):178-81.
- 15. Chintala SK, Sawaya R, **Gokaslan ZL**, Rao JS. Modulation of matrix metalloprotease-2 and invasion in human glioma cells by alpha 3 beta 1 integrin. Cancer Lett. 1996 Jun 5;103(2):201-8.
- 16. Sivaparvathi M, Sawaya R, **Gokaslan ZL**, Chintala SK, Rao JS. Expression and the role of cathepsin H in human glioma progression and invasion. Cancer Lett. 1996 Jun 24;104(1):121-6.
- 17. Chintala SK, **Gokaslan ZL**, Go Y, Sawaya R, Nicolson GL, Rao JS. Role of extracellular matrix proteins in regulation of human glioma cell invasion in vitro. Clin Exp Metastasis. 1996 Sep;14(4):358-66.
- 18. Go Y, Chintala SK, Oka K, **Gokaslan Z**, Sawaya R, Rao JS. Invasive pattern of lac-Z-transfected human glioblastoma cells in nude mice brain. Cancer Lett. 1996 Dec 20;110(1-2):225-31.
- 19. Mohanam S, Chintala SK, Go Y, Bhattacharya A, Venkaiah B, Boyd D, **Gokaslan ZL**, Sawaya R, Rao JS. In vitro inhibition of human glioblastoma cell line invasiveness by antisense uPA receptor. Oncogene. 1997 Mar 20;14(11):1351-9.
- 20. Chintala SK, Ali-Osman F, Mohanam S, Rayford A, Go Y, **Gokaslan ZL**, Gagercas E, Venkaiah B, Sawaya R, Nicolson GL, Rao JS. Effect of cisplatin and BCNU on MMP-2 levels in human glioblastoma cell lines in vitro. Clin Exp Metastasis. 1997 Jul;15(4):361-7.
- 21. Go Y, Chintala SK, Mohanam S, **Gokaslan Z**, Venkaiah B, Bjerkvig R, Oka K, Nicolson GL, Sawaya R, Rao JS. Inhibition of in vivo tumorigenicity and invasiveness of a human glioblastoma cell line transfected with antisense uPAR vectors. Clin Exp Metastasis. 1997 Jul;15(4):440-6.
- 22. Go Y, Chintala SK, Rayford A, Gagercas E, Ali-Osman F, Venkaiah B, Sawaya R, **Gokaslan Z**, Nicolson GL, Rao JS. Cisplatin but not BCNU inhibits urokinase-type plasminogen activator levels in human glioblastoma cell lines in vitro. Clin Exp Metastasis. 1997 Jul;15(4):447-52.
- 23. **Gokaslan ZL**, Samudrala S, Deletis V, Wildrick DM, Cooper PR. Intraoperative monitoring of spinal cord function using motor evoked potentials via transcutaneous epidural electrode during anterior cervical spinal surgery. J Spinal Disord. 1997 Aug;10(4):299-303.
- 24. **Gokaslan ZL**, Romsdahl MM, Kroll SS, Walsh GL, Gillis TA, Wildrick DM, Leavens ME. Total sacrectomy and Galveston L-rod reconstruction for malignant neoplasms. Technical note. J Neurosurg. 1997 Nov;87(5):781-7.
- 25. Chintala SK, Mohanam S, Go Y, Venkaiah B, Sawaya R, **Gokaslan ZL**, Rao JS. Altered in vitro spreading and cytoskeletal organization in human glioma cells by downregulation of urokinase receptor. Mol Carcinog. 1997 Dec;20(4):355-65.
- 26. Walsh GL, **Gokaslan ZL**, McCutcheon IE, Mineo MT, Yasko AW, Swisher SG, Schrump DS, Nesbitt JC, Putnam JB Jr, Roth JA. Anterior approaches to the thoracic spine in patients with cancer: indications and results. Ann Thorac Surg. 1997 Dec;64(6):1611-8.
- 27. Chintala SK, Sawaya R, Aggarwal BB, Majumder S, Giri DK, Kyritsis AP, **Gokaslan ZL**, Rao JS. Induction of matrix metalloproteinase-9 requires a polymerized actin cytoskeleton in human malignant glioma cells. J Biol Chem. 1998 May 29:273(22):13545-51.
- 28. **Gokaslan ZL**, York JE, Walsh GL, McCutcheon IE, Lang FF, Putnam JB Jr, Wildrick DM, Swisher SG, Abi-Said D, Sawaya R. Transthoracic vertebrectomy for metastatic spinal tumors. J Neurosurg. 1998 Oct;89(4):599-609.
- 29. Sawaya R, Go Y, Kyritisis AP, Uhm J, Venkaiah B, Mohanam S, **Gokaslan ZL**, Rao JS. Elevated levels of Mr 92,000 type IV collagenase during tumor growth in vivo. Biochem Biophys Res Commun. 1998 Oct 20;251(2):632-6.
- 30. **Gokaslan ZL**, Chintala SK, York JE, Boyapati V, Jasti S, Sawaya R, Fuller G, Wildrick DM, Nicolson GL, Rao JS. Expression and localization of urokinase-type plasminogen activator in human spinal column tumors. Clin Exp Metastasis.

- 1998 Nov;16(8):713-9.
- 31. **Gokaslan ZL**, Chintala SK, York JE, Boyapati V, Jasti S, Sawaya R, Fuller G, Wildrick DM, Nicolson GL, Rao JS. Expression and role of matrix metalloproteinases MMP-2 and MMP-9 in human spinal column tumors. Clin Exp Metastasis. 1998 Nov;16(8):721-8.
- 32. Mohanam S, Chintala SK, Mohan PM, Sawaya R, Lagos GK, Gokaslan ZL, Kouraklis GP, Rao JS. Increased invasion of neuroglioma cells transfected with urokinase plasminogen activator receptor cDNA. Int J Oncol. 1998 Dec;13(6):1285-90.
- 33. York JE, Kaczaraj A, Abi-Said D, Fuller GN, Skibber JM, Janjan NA, **Gokaslan ZL**. Sacral chordoma: 40-year experience at a major cancer center. Neurosurgery. 1999 Jan;44(1):74-9; discussion 79-80.
- 34. York JE, Berk RH, Fuller GN, Rao JS, Abi-Said D, Wildrick DM, **Gokaslan ZL**. Chondrosarcoma of the spine: 1954 to 1997. J Neurosurg. 1999 Jan;90:73-8.
- 35. Mohanam S, Go Y, Sawaya R, Venkaiah B, Mohan PM, Kouraklis GP, **Gokaslan ZL**, Lagos GK, Rao JS. Elevated levels of urokinase-type plasminogen activator and its receptor during tumor growth in vivo. Int J Oncol. 1999 Jan;14(1):169-74.
- 36. York JE, Walsh GL, Lang FF, Putnam JB, McCutcheon IE, Swisher SG, Komaki R, Gokaslan ZL. Combined chest wall resection with vertebrectomy and spinal reconstruction for the treatment of Pancoast tumors. J Neurosurg. 1999 Jul;91:74-80.
- 37. Jackson RJ, **Gokaslan ZL**. Occipitocervicothoracic fixation for spinal instability in patients with neoplastic processes. J Neurosurg. 1999 Jul;91:81-9.
- 38. Mohan PM, Chintala SK, Mohanam S, Gladson CL, Kim ES, **Gokaslan ZL**, Lakka SS, Roth JA, Fang B, Sawaya R, Kyritsis AP, Rao JS. Adenovirus-mediated delivery of antisense gene to urokinase-type plasminogen activator receptor suppresses glioma invasion and tumor growth. Cancer Res. 1999 Jul 15;59(14):3369-73.
- 39. Gandhi S, Walsh GL, Komaki R, **Gokaslan ZL**, Nesbitt JC, Putnam JB Jr, Roth JA, Merriman KW, McCutcheon IE, Munden RF, Swisher SG. A multidisciplinary surgical approach to superior sulcus tumors with vertebral invasion. Ann Thorac Surg. 1999 Nov;68(5):1778-84; discussion 1784-5.
- 40. York JE, Stringer J, Ajani JA, Wildrick DM, **Gokaslan ZL**. Gastric cancer and metastasis to the brain. Ann Surg Oncol. 1999 Dec;6(8):771-6.
- 41. Jackson RJ, Gokaslan ZL. Spinal-pelvic fixation in patients with lumbosacral neoplasms. J Neurosurg. 2000 Jan;92:61-70.
- 42. **Gokaslan ZL**, Aladag MA, Ellerhorst JA. Melanoma metastatic to the spine: a review of 133 cases. Melanoma Res. 2000 Feb;10(1):78-80.
- 43. Chang DW, Lee JE, **Gokaslan ZL**, Robb GL. Closure of hemicorporectomy with bilateral subtotal thigh flaps. Plast Reconstr Surg. 2000 Apr;105(5):1742-6.
- 44. Miller DJ, Lang FF, Walsh GL, Abi-Said D, Wildrick DM, **Gokaslan ZL**. Coaxial double-lumen methylmethacrylate reconstruction in the anterior cervical and upper thoracic spine after tumor resection. J Neurosurg. 2000 Apr;92:181-90.
- 45. Jackson RJ, Loh SC, **Gokaslan ZL**. Metastatic renal cell carcinoma of the spine: surgical treatment and results. J Neurosurg. 2001 Jan;94(1 Suppl):18-24.Erratum in: J Neurosurg 2001 Apr;94(2 Suppl):340.
- 46. Fourney DR, Abi-Said D, Lang FF, McCutcheon IE, **Gokaslan ZL**. Use of pedicle screw fixation in the management of malignant spinal disease: experience in 100 consecutive procedures. J Neurosurg. 2001 Jan;94(1 Suppl):25-37.
- 47. Michael CB, **Gokaslan ZL**, DeMonte F, McCutcheon IE, Sawaya R, Lang FF. Surgical resection of calvarial metastases overlying dural sinuses. Neurosurgery. 2001 Apr;48(4):745-54; discussion 754-5.
- 48. Fourney DR, Abi-Said D, Rhines LD, Walsh GL, Lang FF, McCutcheon IE, **Gokaslan ZL**. Simultaneous anterior-posterior approach to the thoracic and lumbar spine for the radical resection of tumors followed by reconstruction and stabilization. J Neurosurg. 2001 Apr;94:232-44. Erratum in: J Neurosurg 2001 Jul;95:160.
- 49. Hachem R, Afif C, **Gokaslan Z**, Raad I. Successful treatment of vancomycin-resistant Enterococcus meningitis with linezolid. Eur J Clin Microbiol Infect Dis. 2001 Jun;20(6):432-4.
- 50. Jackson RJ, Fuller GN, Abi-Said D, Lang FF, **Gokaslan ZL**, Shi WM, Wildrick DM, Sawaya R. Limitations of stereotactic biopsy in the initial management of gliomas. Neuro Oncol. 2001 Jul;3(3):193-200.
- 51. Lacroix M, Abi-Said D, Fourney DR, **Gokaslan ZL**, Shi W, DeMonte F, Lang FF, McCutcheon IE, Hassenbusch SJ, Holland E, Hess K, Michael C, Miller D, Sawaya R. A multivariate analysis of 416 patients with glioblastoma multiforme: prognosis, extent of resection, and survival. J Neurosurg. 2001 Aug;95(2):190-8.
- 52. Lang FF, Olansen NE, DeMonte F, **Gokaslan ZL**, Holland EC, Kalhorn C, Sawaya R. Surgical resection of intrinsic insular tumors: complication avoidance. J Neurosurg. 2001 Oct;95(4):638-50.
- 53. Liebross RH, Starkschall G, Wong PF, Horton J, **Gokaslan ZL**, Komaki R. The effect of titanium stabilization rods on spinal cord radiation dose. Med Dosim. 2002 Spring;27(1):21-4.
- 54. Marmor E, Fourney DR, Rhines LD, Skibber JM, Fuller GN, **Gokaslan ZL**. Sacrococcygeal ganglioneuroma. J Spinal Disord Tech. 2002 Jun;15(3):265-8.
- 55. Lin PP, Guzel VB, Moura MF, Wallace S, Benjamin RS, Weber KL, Morello FA Jr, **Gokaslan ZL**, Yasko AW. Long-term follow-up of patients with giant cell tumor of the sacrum treated with selective arterial embolization. Cancer. 2002 Sep

- 15;95(6):1317-25.
- 56. Hanbali F, Fourney DR, Marmor E, Suki D, Rhines LD, Weinberg JS, McCutcheon IE, Suk I, **Gokaslan ZL**. Spinal cord ependymoma: radical surgical resection and outcome. Neurosurgery. 2002 Nov;51(5):1162-72; discussion 1172-4.
- 57. Fourney DR, Schomer DF, Nader R, Chlan-Fourney J, Suki D, Ahrar K, Rhines LD, **Gokaslan ZL**. Percutaneous vertebroplasty and kyphoplasty for painful vertebral body fractures in cancer patients. J Neurosurg. 2003 Jan;98:21-30.
- 58. Fourney DR, **Gokaslan ZL**. Spinal instability and deformity due to neoplastic conditions. Neurosurg Focus. 2003 Jan 15;14(1):e8. Review.
- 59. Fourney DR, Prabhu SS, Cohen ZR, Rhines LD, **Gokaslan ZL**. Thoracolumbopelvic stabilization for the treatment of instability caused by recurrent myxopapillary ependymoma. J Spinal Disord Tech. 2003 Feb;16(1):108-11.
- 60. Fourney DR, York JE, Cohen ZR, Suki D, Rhines LD, **Gokaslan ZL**. Management of atlantoaxial metastases with posterior occipitocervical stabilization. J Neurosurg. 2003 Mar;98:165-70.
- 61. Fourney DR, Gokaslan ZL. Current management of sacral chordoma. Neurosurg Focus. 2003 Aug 15;15(2):E9. Review.
- 62. Yao KC, Boriani S, **Gokaslan ZL**, Sundaresan N. En bloc spondylectomy for spinal metastases: a review of techniques. Neurosurg Focus. 2003 Nov 15;15(5):E6. Review.
- 63. Ryken TC, Eichholz KM, Gerszten PC, Welch WC, **Gokaslan ZL**, Resnick DK. Evidence-based review of the surgical management of vertebral column metastatic disease. Neurosurg Focus. 2003 Nov 15;15(5):E11. Review.
- 64. Hentschel SJ, Rhines LD, Wong FC, **Gokaslan ZL**, McCutcheon IE. Subarachnoid-pleural fistula after resection of thoracic tumors. J Neurosurg. 2004 Apr;100:332-6.
- 65. Bagley CA, **Gokaslan ZL**. Cauda equina syndrome caused by primary and metastatic neoplasms. Neurosurg Focus. 2004 Jun 15;16(6):e3. Review.
- 66. Gallia GL, Weiss N, Campbell JN, McCarthy EF, Tufaro AP, **Gokaslan ZL.** Vertebral synovial chondromatosis. Report of two cases and review of the literature. J Neurosurg Spine. 2004 Sep;1(2):211-8. Review.
- 67. Fourney DR, **Gokaslan ZL**. Anterior approaches for thoracolumbar metastatic spine tumors. Neurosurg Clin N Am. 2004 Oct;15(4):443-51. Review.
- 68. Schmidt MH, Fourney DR, Gokaslan ZL. Metastatic spine disease. Neurosurg Clin N Am. 2004 Oct;15(4):xv-xvi.
- 69. Fourney DR, **Gokaslan ZL**. Use of "MAPs" for determining the optimal surgical approach to metastatic disease of the thoracolumbar spine: anterior, posterior, or combined. Invited submission from the Joint Section Meeting on Disorders of the Spine and Peripheral Nerves, March 2004. J Neurosurg Spine. 2005 Jan;2(1):40-9.
- 70. Mantha A, Legnani FG, Bagley CA, Gallia GL, Garonzik I, Pradilla G, Amundson E, Tyler BM, Brem H, **Gokaslan ZL**. A novel rat model for the study of intraosseous metastatic spine cancer. J Neurosurg Spine. 2005 Mar;2(3):303-7.
- 71. Marco RA, Gentry JB, Rhines LD, Lewis VO, Wolinsky JP, Jaffe N, **Gokaslan ZL**. Ewing's sarcoma of the mobile spine. Spine (Phila Pa 1976). 2005 Apr 1;30(7):769-73.
- 72. Holman PJ, Suki D, McCutcheon I, Wolinsky JP, Rhines LD, **Gokaslan ZL**. Surgical management of metastatic disease of the lumbar spine: experience with 139 patients. J Neurosurg Spine. 2005 May;2(5):550-63.
- 73. Amundson E, Pradilla G, Brastianos P, Bagley C, Riley LH 3rd, Garonzik IM, McCarthy E, Wolinsky JP, **Gokaslan ZL**. A novel intravertebral tumor model in rabbits. Neurosurgery. 2005 Aug;57(2):341-6; discussion 341-6.
- 74. Guo Y, Palmer JL, Shen L, Kaur G, Willey J, Zhang T, Bruera E, Wolinsky JP, **Gokaslan ZL**. Bowel and bladder continence, wound healing, and functional outcomes in patients who underwent sacrectomy. J Neurosurg Spine. 2005 Aug;3(2):106-10.
- 75. Fourney DR, Rhines LD, Hentschel SJ, Skibber JM, Wolinsky JP, Weber KL, Suki D, Gallia GL, Garonzik I, **Gokaslan ZL**. En bloc resection of primary sacral tumors: classification of surgical approaches and outcome. J Neurosurg Spine. 2005 Aug;3(2):111-22.
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- 90. Myelopathy Study: Two Year Surgical Outcomes of a Prospective Multicenter Study In 280 Patients. Congress of Neurological Surgeons Annual Meeting, San Francisco, CA, October 16-21, 2010.
- 91. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—

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- 92. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. Scoliosis Research Society (SRS) Annual Meeting, Kyoto, Japan, September 21-24, 2010.
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- 95. Chapman J, Vaccaro A, Fehlings M, Kopjar B, Pollo K, Bauer Z, Shaffrey C, Arnold P, **Gokaslan Z**, Härtl R, Brodke D, France J, Yoon S, Dekutoski M, Sasso R, Bono C. The AOSpine North America Geriatric Odontoid Fracture Study: A Retrospective Review of Mortality Outcomes in Surgical vs Conservative Treatment in 158 Patients with Long Term Follow-up. Cervical Spine Research Society Annual Meeting, Charlotte, North Carolina, December 2-4, 2010.
- 96. Fehlings M, Kopjar B, Arnold P, Yoon ST, Vaccaro A, Shaffrey C, Brodke D, Janssen M, Chapman J, Sasso R, Woodard E, Dekutoski M, Gokaslan Z, Bono C. Anterior vs Posterior Surgical Approaches to Treat Cervical Spondylotic Myelopathy: Outcomes of the Prospective Multicenter AOSpine North America CSM Study in 280 Patients. Cervical Spine Research Society Annual Meeting, Charlotte, North Carolina, December 2-4, 2010.
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- 99. Smith J, Shaffrey C, Fehlings M, Kopjar B, Arnold P, Yoon ST, Massicotte E, Vaccaro A, Brodke D, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, Gokaslan ZL. The AOSpine North America Cervical Spondylotic Myelopathy Study: Perioperative Complication Rates Associated with Surgical Treatment Based on a Prospective Multicenter Study of 302 Patients. 2011 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Phoenix, AZ, March 9-11, 2011. [Abstract Accepted Oral Presentation]
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- 102. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M, Finkelstein J, Rhines L. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. 2011 Global Spine Congress, Barcelona, Spain. March 24-26, 2011.
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- 104. Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutosk M, **Gokaslan ZL**. Predictors of Success in the Surgical Treatment for Cervical Spondylotic Myelopathy: Analysis of the AOSpine North America Multi-Center Prospective Study in 260 Subjects.

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- 106. Fehlings M, Vaccaro A, Kopjar B, Chapman J, Shaffrey C, Arnold P, **Gokaslan ZL**, Hartl R, Brodke D, France J, Yoon ST, Dekutoski M, Sasso R, Bono C. Functional and Quality of Life Outcomes in Geriatric Patients with Type II Odontoid Fracture: One Year Results from the AOSpine North America Multi-Center GOF Prospective Study. 2011 SRS 18th Annual International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 13-16, 2011.
- 107.Smith J, Shaffrey C, Fehlings M, Kopjar B, Arnold P, Yoon ST, Massicotte E, Vaccaro A, Brodke D, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, Gokaslan ZL. The AOSpine North America Cervical Spondylotic Myelopathy Study: Perioperative Complication Rates Associated with Surgical Treatment Based on a Prospective Multicenter Study of 302 Patients. 2011 SRS 18th Annual International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 13-16, 2011. [Abstract Accepted as Oral Presentation *Nominated for Whitecloud Award for Best Clinical Paper].
- 108. Fehlings M, Smith J, Shaffrey C, Kopjar B, Arnold P, Yoon SW, Vaccaro A, Brodke D, Janssen M, Chapman J, Sasso R, Woodard E, Banco R, Massicotte E, Dekutoski MB, **Gokaslan ZL**, Bono C. Predictors of Clinical Outcomes and Perioperative Complications in the Surgical Treatment of Cervical Spondylotic Myelopathy: Results of the AOSpine North America Multi-Center Prospective Study. 2011 SRS 18th Annual International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 13-16, 2011. [Abstract Accepted for Oral Presentation Combined Predictors and Complications Abstract Submissions].
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- 110. Fehlings M, Kopjar B, Vaccaro A, Arnold P, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M, Finkelstein J, Rhines L. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression the AOSpine North America Prospective Multicenter Study. [abstract accepted as oral presentation] Nominated for Whitecloud Award for Best Clinical Paper. Scoliosis Research Society (SRS) IMAST Meeting, Copenhagen, Denmark, July 13–16, 2011.
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- 112. Smith J, Shaffrey C, Kopjar B, Arnold P, Yoon SW, Vaccaro A, Brodke, D, Janssen M, Chapman J, Sasso R, Woodard E, Banco R, Massicotte R, Dekutoski M, **Gokaslan Z**L, Bono C, Fehlings M. Impact of Early and Late Complications on Patient Outcomes following Surgical Treatment of Cervical Spondylotic Myelopathy Based on a Prospective Multicenter Study. The AOSpine North America CSM Study. 2011 Congress of Neurological Surgeons (CNS) Annual Meeting, Washington DC, October 1-6, 2011 [Abstract Accepted as Oral Presentation].
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- Study. 2011 Congress of Neurological Surgeons (CNS) Annual Meeting, Washington DC, October 1-6, 2011 [Abstract Accepted as Digital Poster].
- 116.Fehlings M, Vaccaro A, Kopjar B, Chapman J, Shaffrey C, Arnold P, **Gokaslan ZL**, Hartl R, Brodke D, France J, Yoon ST, Dekutoski M, Sasso R, Bono C. Functional and Quality of Life Outcomes in Geriatric Patients with Type II Odontoid Fracture: One Year Results from the AOSpine North America Multi-Center GOF Prospective Study. 2011 North America Spine Society NASS Meeting, Chicago, IL, November 1-5, 2011. [Abstract Accepted as Oral Presentation]
- 117. Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso T, Bono C, Dekutoski M, **Gokaslan Z**. Predictors of Outcomes in Surgical Treatment For Cervical Spondylotic Myelopathy: The AOSpine North America Multi-Center Prospective Study. 2011 North America Spine Society NASS Meeting, Chicago, IL, November 1-5, 2011. [Abstract Accepted as E-Poster]
- 118.Fehlings M, Kopjar B, Vaccaro A, Arnold P, Fisher C, Gokaslan Z, Schuster J, Dekutoski M, Finkelstein J, Rhines L, France J. The Effect of Surgery on Neurological Outcomes in Patients with Metastatic Epidural Spinal Cord Compression—the AOSpine North America Prospective Multicenter Study. 2011 39th Annual CSRS Meeting. Scottsdale, AZ. December 8-10, 2011. [Accepted as Oral Poster]
- 119. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. 2011 North America Spine Society NASS Meeting, Chicago IL, November 1-5, 2011. [Abstract Accepted as Podium Presentation]
- 120.Smith J, Shaffrey C, Fehlings M, Kopjar B, Arnold P, Yoon ST, Massicotte E, Vaccaro A, Brodke D, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, Gokaslan ZL. The AOSpine North America Cervical Spondylotic Myelopathy Study: Perioperative Complication Rates Associated with Surgical Treatment Based on a Prospective Multicenter Study of 302 Patients. 2011 North America Spine Society NASS Meeting, Chicago, IL, November 1-5, 2011. [Abstract Accepted as Oral Presentation]
- 121.Arnold P, Kopjar B, Fehlings M, Yoon ST, Massicotte E, Vaccaro A, Brodke D, Woodard E, Banco E, Chapman J, Janssen M, Sasso S, Bono C, Dekutoski M, **Gokaslan ZL**. Impact of diabetes on symptoms and treatment outcomes in patients with cervical spondylotic myelopathy. The results of the AOSpine North America Multi-Center Prospective Study. 2011 North America Spine Society NASS Meeting, Chicago, IL, November 1-5, 2011. [Abstract Accepted as Oral Presentation]
- 122. Chapman J, Vaccaro A, Fehlings M, Kopjar B, Pollo K, Bauer Z, Shaffrey C, Arnold P, **Gokaslan Z**, Härtl R, Brodke D, France J, Yoon S, Dekutoski M, Sasso R, Bono C. The AOSpine North America Geriatric Odontoid Fracture Study: A Retrospective Review of Mortality Outcomes in Surgical vs Conservative Treatment in 332 Patients with Long Term Follow-up. 2011 39th Annual CSRS Meeting. Scottsdale, AZ. December 8-10, 2011. [Podium Presentation]
- 123.Fehlings M, Vaccaro A, Kopjar B, Chapman J, Shaffrey C, Arnold P, Gokaslan Z, Brodke D, France J, Yoon S, Dekutoski M, Sasso R, Bono C. Impact of Treatment Complications on Outcomes in Geriatric Patients with Type II Odontoid Fracture: Results from the AOSpine North America Multi-Center GOF Prospective Study. 2012 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL. March 7-10, 2012 [Abstract Submitted Accepted as Oral Presentation]
- 124.Fehlings M, Vaccaro A, Kopjar B, Chapman J, Shaffrey C, Arnold P, **Gokaslan ZL**, Hartl R, Brodke D, France J, Yoon ST, Dekutoski M, Sasso R, Bono C. Functional and Quality of Life Outcomes in Geriatric Patients with Type II Odontoid Fracture: One Year Results from the AOSpine North America Multi-Center GOF Prospective Study. 2012 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL. March 7-10, 2012. [Abstract Submitted Accepted for Oral presentation]
- 125. Fehlings M, Vaccaro A, Kopjar B, Chapman J, Shaffrey C, Arnold P, **Gokaslan ZL**, Hartl R, Brodke D, France J, Yoon ST, Dekutoski M, Sasso R, Bono C. Functional and Quality of Life Outcomes in Geriatric Patients with Type II Odontoid Fracture: One Year Results from the AOSpine North America Multi-Center GOF Prospective Study. 12th Annual Scientific Conference of the Canadian Spine Society. Sun Peaks, British Columbia. February 29 March 3, 2012 [Abstract- Accepted as Oral Presentation]
- 126.Fehlings M, Vaccaro A, Kopjar B, Chapman J, Shaffrey C, Arnold P, **Gokaslan ZL**, Hartl R, Brodke D, France J, Yoon ST, Dekutoski M, Sasso R, Bono C. Functional and Quality of Life Outcomes in Geriatric Patients with Type II Odontoid Fracture: One Year Results from the AOSpine North America Multi-Center GOF Prospective Study. 2012 American Association of Neurological Surgeons (AANS). Miami, FL. April 14-18, 2012.
- 127.Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, **Gokaslan Z**. Is Surgery for Cervical Spondylotic Myelopathy Cost-Effective? 12th Annual Scientific Conference of the Canadian Spine Society. Sun Peaks, British Columbia. February 29 March 3, 2012 [Abstract Accepted as Oral presentation]
- 128. Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Smith J, Woodard E, Banco R, Chapman J, Janssen M, Bono C, Sasso R, Dekutoski M, **Gokaslan ZL**. Anterior vs posterior surgical approaches to treat

- cervical spondylotic myelopathy: Outcomes of the prospective multicenter AOSpine North America CSM Study in 278 patients. 2012 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL. March 7-10, 2012. [Abstract Submitted Accepted as Oral Presentation]
- 129.Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, **Gokaslan Z**. Is Surgery for Cervical Spondylotic Myelopathy Cost-Effective? 2012 American Association of Neurological Surgeons (AANS). Miami, FL. April 14-18, 2012. [Abstract Submitted Accepted as Oral Presentation]
- 130.Fehlings MG, Smith JS, Kopjar B, Arnold PM, Yoon ST, Vaccaro AR, Brodke DS, Janssen ME, Chapman JR, Sasso RC, Woodard EJ, Banco RJ, Massicotte EM, Dekutoski MB, **Gokaslan ZL**, Bono CM, Shaffrey CI. Factors Associated with the Occurrence of Perioperative Complications in the Treatment of Cervical Spondylotic Myelopathy Based on 302 Patients from the AOSpine North America Cervical Spondylotic Myelopathy Study. 2011 AANS Annual Conference, Denver, CO. April 9-14, 2011 [Oral Presentation].
- 131.Fehlings MG, Smith JS, Kopjar B, Arnold PM, Yoon ST, Vaccaro AR, Brodke DS, Janssen ME, Chapman JR, Sasso RC, Woodard EJ, Banco RJ, Massicotte EM, Dekutoski MB, **Gokaslan ZL**, Bono CM, Shaffrey CI. Factors Associated with the Occurrence of Perioperative Complications in the Treatment of Cervical Spondylotic Myelopathy Based on 302 Patients from the AOSpine North America Cervical Spondylotic Myelopathy Study. 2011 SRS 18th Annual International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 13-16, 2011. [Oral Presentation].
- 132.Predictors of Success in the Surgical Treatment for Cervical Spondylotic Myelopathy: Analysis of the AOSpine North America Multi-Center Prospective Study in 260 Subjects. M. Fehlings, B. Kopjar, S. Tim Yoon, P. Arnold, E. Massicotte, A Vaccaro, D Brodke, C. Shaffrey, E. Woodard, R. Banco, J. Chapman, M. Janssen, R. Sasso, C. Bono, M. Dekutoski, Z. Gokaslan. 2011 SRS 18th Annual International Meeting on Advanced Spine Techniques (IMAST), Copenhagen, Denmark, July 13-16, 2011. [Oral Presentation]
- 133. Smith J, Shaffrey C, Kopjar B, Arnold P, Yoon SW, Vaccaro A, Brodke, D, Janssen M, Chapman J, Sasso R, Woodard E, Banco R, Massicotte R, Dekutoski M, **Gokaslan Z**L, Bono C, Fehlings M. Impact of Early and Late Complications on Patient Outcomes following Surgical Treatment of Cervical Spondylotic Myelopathy Based on a Prospective Multicenter Study. The AOSpine North America CSM Study. 2011 39th Annual CSRS Meeting. Scottsdale, AZ. December 8-10, 2011[Accepted as podium presentation]
- 134.Smith J, Shaffrey C, Fehlings M, Kopjar B, Arnold P, Yoon ST, Massicotte E, Vaccaro A, Brodke D, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, **Gokaslan ZL**. The AOSpine North America Cervical Spondylotic Myelopathy Study: Perioperative Complication Rates Associated with Surgical Treatment Based on a Prospective Multicenter Study of 302 Patients. 2011 39th Annual CSRS Meeting. Scottsdale, AZ. December 8-10, 2011. [Accepted as podium presentation]
- 135.Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, **Gokaslan Z**. Is Surgical Decompression in Patients with Mild Cervical Spondylotic Myelopathy Effective? Results of the Prospective, Controlled, Multicenter AOSpine North America CSM Study. 2012 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL. March 7-10, 2012. [Abstract Submitted Accepted as Oral Presentation]
- 136.Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, **Gokaslan Z**. Is Surgical Decompression in Patients with Mild Cervical Spondylotic Myelopathy Effective? Results of the Prospective, Controlled, Multicenter AOSpine North America CSM Study. Submitted to JAMA.
- 137. Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Woodard E, Banco R, Chapman J, Janssen M, Sasso R, Bono C, Dekutoski M, **Gokaslan Z**. Is Surgical Decompression in Patients with Mild Cervical Spondylotic Myelopathy Effective? Results of the Prospective, Controlled, Multicenter AOSpine North America CSM Study. Submitted to Lancet Neurology.
- 138. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. 2011 AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, March 9-11, 2011. [Oral Presentation].
- 139.Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M, Finkelstein J, Rhines L. The Short-Term Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression (MESCC)— Results of the ongoing AOSpine North America Prospective Multicenter Study. 2012 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL. March 7-10, 2012. [Abstract Submitted Accepted as Oral Presentation]
- 140.Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M, Finkelstein J, Rhines L. The Short-Term Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic

- Epidural Spinal Cord Compression (MESCC)—Results of the ongoing AOSpine North America Prospective Multicenter Study. 2012 American Association of Neurological Surgeons (AANS). Miami, FL. April 14-18, 2012. [Abstract Submitted Accepted as Oral Presentation]
- 141.Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. 2012 Scoliosis Research Society (SRS) 47th Annual Meeting & Combined Course. Chicago, IL, September 5-8, 2012. [Abstract Accepted Oral Presentation]
- 142. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. 2012 North American Spine Society NASS Conference, Dallas, TX October 24-27, 2012. [Abstract]
- 143. Fehlings MG, Kopjar B, Vaccaro AR, Arnold PM, Fisher C, **Gokaslan Z**, Schuster J, Dekutoski M. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression—Initial Results of the AOSpine North America Prospective Multicenter Study. 2012 62nd Annual Meeting of the Congress of Neurological Surgeons (CNS) [Abstract].
- 144.Fehlings M, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Smith J, Woodard E, Banco R, Chapman J, Janssen M, Bono C, Sasso R, Dekutoski M, **Gokaslan ZL**. Anterior vs. posterior surgical approaches to treat cervical spondylotic myelopathy: Outcomes of the prospective multicenter AOSpine North America CSM Study in 278 patients. 2012 North American Spine Society NASS Conference, Dallas, TX October 24-27, 2012. [Abstract Accepted for Oral Presentation Best Papers Category]
- 145. Efficacy and Safety of Surgical Decompression in Patients with Cervical Spondylotic Myelopathy: Results of the AOSpine North America Multi-Centre Study. Fehlings M, Wilson J, Kopjar B, Yoon ST, Arnold P, Massicotte E, Vaccaro A, Brodke D, Shaffrey C, Smith J, Woodard E, Banco R, Chapman J, Janssen M, BonoC, Sasso R, Dekutoski M, Gokaslan ZL. [Submitted to JBJS April 26, 2012
- 146.Fehlings MG, Kopjar B, Fisher C, Arnold PM, Vaccaro A, Rhines L, Schuster J, Finkelstein J, Dekutoski M, Gokaslan Z, France J. The Effect of Surgery on Health Related Quality of Life and Functional Outcome in Patients with Metastatic Epidural Spinal Cord Compression: the AOSpine North America Prospective Multicenter Study. Submitted, Global Spine Congress 2013
- 147. Wang AS, Stayman JW, Otake Y, Kleinszig G, Vogt S, Khanna AJ, Gokaslan ZL, and Siewerdsen JH, "Statistical reconstruction for soft tissue imaging with low dose C-arm cone-beam CT," Proceedings of the 12th International Fully3D Meeting: Fully Three-Dimensional Image Reconstruction in Radiology and Nuclear Medicine, 201-204 (2013).
- 148. Fisher C, Boriani S, Varga P, Fehlings M, Bilsky M, Dekutoski M, Luzzati A, Williams R, Berven S, Chou D, Quraishi N, Rhines L, Bettegowda C, **Gokaslan ZL**. A Novel Scientific Model for Rare and often Neglected Neoplastic Conditions: AOSpine Knowledge Forum Tumor Multicenter, International Dataset for Primary Tumors of the Spine.
- 149.Kaloostian P, Zandik PL, Karami K, Groves ML, Amin AG, Ju D, Wolinsky JP, Witham T, Bydon A, Z.L. Gokaslan, Sciubba D. Sacral Chordoma: Data from Forty-five Consecutive Cases at a Single Academic Medical Center. P.E. AANS Annual Meeting, New Orleans 2013. Digital Poster.
- 150. Karami K, Zadnik PL, Kaloosti
- 151.an P, Groves ML, Gurakar M, Amin A, Ju DG, Wolinsky JP, Witham TF, Bydon A, **Gokaslan ZL**, Sciubba D.Surgical Resection of Multiple Myeloma: Outcomes from Thirty-one Consecutive Patients at a Single Medical Center. AANS Annual Meeting, New Orleans 2013. Digital Poster.
- 152.Zadnik PL, Groves ML, Kaloostian PE, Karami K, Wolinsky JP, Witham TF, Bydon A, **Gokaslan ZL**, Sciubba DM. Impact of Sacral Chordoma Tumor Size on Patient Length of Stay and Outcome. AANS/CNS Section on Disorders of the Spine and Peripheral Nerve Phoenix 2013. March 6-9. Digital poster.
- 153.Zadnik PL, Hwang L, Ju D, Groves ML, Sui J, Amin AG, Witham TF, Bydon A, Wolinsky JP, **Gokaslan ZL**, Sciubba DM. Decade in Review at a Single Academic Center: Demographics and Prognostic Variables for Patients Undergoing Spine Surgery for Metastatic Breast Cancer. AANS/CNS Section on Disorders of the Spine and Peripheral Nerve Phoenix 2013. March 6-9. Digital poster.
- 154.Groves ML, Zadnik PL, Sui J, Ju D, Karami K, Kaloostian P, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF, Sciubba D. Survival following surgical resection of spinal sarcoma: a report of 25 consecutive cases. AANS/CNS Section on Disorders of the Spine and Peripheral Nerve Phoenix 2013. March 6-9. Oral presentation.
- 155.Ju D, Zadnik PL, Groves ML, Sarabia-Estrada R, Witham TF, Bydon A, Wolinsky JP, **Gokaslan ZL**, Sciubba DM. Predictors of Survival Following Surgical Management of Breast Cancer Metastatic to the Spine. AANS/CNS Section on Disorders of the Spine and Peripheral Nerve Phoenix 2013. March 6-9. Oral presentation. Annual Meeting of the AANS / CNS Joint Section on Disorders of the Spine and Peripheral Nerves. Phoenix, AZ. March 2013. Oral Presentation.
- 156. Bydon M, Xu R, Papademetriou K, Sciubba DM, Wolinsky JP, Witham TF, Gokaslan ZL, Jallo G, Bydon A. Safety of

- spinal decompression using an ultrasonic bone curette compared with a high-speed drill: outcomes in 337 patients. Annual Meeting of the AANS / CNS Joint Section on Disorders of the Spine and Peripheral Nerves. Phoenix, AZ. March 2013. Oral Presentation.
- 157.Bydon M, Xu R, Garza-Ramos R, Henry R, Sciubba DM, Wolinsky JP, Witham T, **Gokaslan ZL**, Bydon A. Incidence and Clinical Outcomes of Patients Requiring Repeat ACDF Surgery Due to Adjacent Level Disease. Annual Meeting of the AANS / CNS Joint Section on Disorders of the Spine and Peripheral Nerves. Phoenix, AZ. March 2013. Oral Presentations.
- 158.Bydon M, Xu R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease after ACDF: Development of adjacent segment disease is more likely to occur above the index ACDF level. Society for Progress and Innovation in the Near East (SPINE) 2013 Annual Meeting. Beirut, Lebanon. June 2013. Best Scientific Paper Award
- 159.Bydon M, Xu R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease after ACDF: Incidence and clinical outcomes of patients requiring anterior versus posterior repeat cervical fusion. Society for Progress and Innovation in the Near East (SPINE) 2013 Annual Meeting. Beirut, Lebanon. June 2013. Distinguished Abstract Award.
- 160.Bydon M, Xu R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease after ACDF: Clinical outcomes after first repeat surgery versus second repeat surgery. Society for Progress and Innovation in the Near East (SPINE) 2013 Annual Meeting. Beirut, Lebanon. June 2013
- 161.Bydon M, Xu R, Papademetriou K, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Jallo G, Bydon A. Safety and efficacy of an ultrasonic bone curette in reduction of intraoperative durotomies: Outcomes in 337 patients. Society for Progress and Innovation in the Near East (SPINE) 2013 Annual Meeting. Beirut, Lebanon. June 2013.
- 162. Bydon M, Xu R, Amin AG, Macki M, Kaloostian P, Sciubba DM, Wolinsky JP, **Gokaslan ZL**, Bydon A, Witham TF. Safety and efficacy of pedicle screw placement using intraoperative computed tomography: Consecutive series of 1148 pedicle screws. Society for Progress and Innovation in the Near East (SPINE) 2013 Annual Meeting. Beirut, Lebanon. June 2013.
- 163.Bydon M, Xu R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease after ACDF: Development of adjacent segment disease is more likely to occur above the index ACDF level. World Association of Lebanese Neurosurgeons Home Coming Meeting. Beirut, Lebanon. June 2013.
- 164.Bydon M, Xu R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease after ACDF: Incidence and clinical outcomes of patients requiring anterior versus posterior repeat cervical fusion. World Association of Lebanese Neurosurgeons Home Coming Meeting. Beirut, Lebanon. June 2013.
- 165.Bydon M, Xu R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease after ACDF: Clinical outcomes after first repeat surgery versus second repeat surgery. World Association of Lebanese Neurosurgeons Home Coming Meeting. Beirut, Lebanon. June 2013.
- 166.Bydon M, Xu R, Papademetriou K, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Jallo G, Bydon A. Safety and efficacy of an ultrasonic bone curette in reduction of intraoperative durotomies: Outcomes in 337 patients. World Association of Lebanese Neurosurgeons Home Coming Meeting. Beirut, Lebanon. June 2013.
- 167.Bydon M, Xu R, Amin AG, Macki M, Kaloostian P, Sciubba DM, Wolinsky JP, **Gokaslan ZL**, Bydon A, Witham TF. Safety and efficacy of pedicle screw placement using intraoperative computed tomography: Consecutive series of 1148 pedicle screws. World Association of Lebanese Neurosurgeons Home Coming Meeting. Beirut, Lebanon. June 2013.
- 168.Bydon M, Xu R, Sciubba DM, Wolinsky JP, Witham TF, Bydon A, **Gokaslan ZL**. Adjacent Segment Disease after ACDF: Clinical Outcomes after First Repeat versus Second Repeat Surgery. American Academy of Neurological Surgery 75th Annual Meeting. Newport Beach, California. September 25-28, 2013.
- 169.Bydon M, Ma TM, Xu R, Macki M, Weingart J, Olivi A, **Gokaslan ZL**, Tamargo R, Brem H, Bydon A. Surgical Management of Craniocervial Junction Meningiomas: A Series of 22 Consecutive Patients. Congress of Neurological Surgeons 2013 Annual Meeting. San Francisco California, October 19 23, 2013.
- 170.Bydon M, Xu R, Macki M, Ma TM, Kaloostian P, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon T, Witham T. Safety and Efficacy of Pedicle Screw Placement Using Intraoperative Computed Tomography: Consecutive Series of 1148 Pedicle Screws. Congress of Neurological Surgeons 2013 Annual Meeting. San Francisco California, October 19 23, 2013.
- 171.Bydon M, Xu R, Macki M, Sciubba DM, Wolinksy JP, Witham T, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease After ACDF: Development of Adjacent Segment Disease is More Likely to Occur Above the Index ACDF Level. Congress of Neurological Surgeons 2013 Annual Meeting. San Francisco California, October 19–23, 2013.
- 172.Bydon M, Xu R, Macki M, Ma TM, Kaloostian P, Sciubba DM, Wolinsky JP, Witham T, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease After ACDF: Clinical Outcomes After First Repeat Surgery Versus Second Repeat Surgery. Congress of Neurological Surgeons 2013 Annual Meeting. San Francisco California, October 19 23, 2013.
- 173.Bydon M, Xu R, Santiago-Dieppa D, Macki M, Sciubba DM, Wolinksy JP, Bydon A, **Gokaslan ZL**, Witham T. Long-term outcomes after non-instrumented lumbar arthrodesis. Congress of Neurological Surgeons 2013 Annual Meeting. San

- Francisco California, October 19 23, 2013.
- 174.Bydon M, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon A, Witham TF. The cost-effectiveness of interbody fusions versus posterolateral fusions in 137 patients with lumbar spondylolisthesis. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 175. Bydon M, Abt NB, De la Garza-Ramos R, Macki M, Olorundare IO, Mathios D, **Gokaslan ZL**, Bydon A. Patients with spinal stenosis or spondylolisthesis may have increased risk of postoperative morbidity after anterior lumbar interbody fusion. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 176.Bydon M, Abt NB, De la Garza-Ramos R, Olorundare IO, Macki M, Mathios D, Sciubba DM, **Gokaslan ZL**, Bydon A. Patients with neck pain have the highest rates of reoperation after posterior cervical foraminotomy: An analysis of 219 cases. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 177.Macki M, Bydon M, De la Garza-Ramos R, Zadnik P, Sciubba DM, Wolinsky JP, **Gokaslan ZL**. Long-term outcomes in primary spinal osteochondroma: A multicenter study of 27 patients. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 178.Bydon M, Xu R, Santiago-Dieppa D, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Bydon A. Adjacent segment disease in 511 cases of postero-lateral instrumented lumbar arthrodesis: Floating fusion versus distal contribution including the sacrum. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 179.Bydon M, De la Garza-Ramos R, Macki M, Abt NB, Mathios D, Qadi M, Sciubba DM, **Gokaslan ZL**, Bydon A. Lumbar fusion versus non-operative management for treatment of discogenic low back pain: A systematic review and meta-analysis of randomized controlled trials. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 180.Bydon M, Xu R, Macki M, De la Garza-Ramos R, Mathios D, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Adjacent segment disease after anterior cervical discectomy and fusion in a large series. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 181.Bydon M, Lin JA, De la Garza-Ramos R, Macki M, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. The role of spinal fusion in the treatment of cervical synovial cysts: A series of seventeen patients and meta-analysis. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 182.Bydon M, Santiago-Dieppa D, Xu R, De la Garza-Ramos R, Macki M, Abt NB, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF. Long-term outcomes after non- instrumented lumbar arthrodesis. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 183.Bydon M, De la Garza-Ramos R, Xu R, Macki M, Abt NB, Sciubba DM, Wolinksy JP, Bydon A, **Gokaslan ZL**, Witham TF. Patients with degenerative disc disease have the highest rates of reoperation after lumbar fusion: An analysis of 790 patients based on preoperative diagnosis. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 184.Bydon M, De la Garza-Ramos R, Macki M, Abt NB, Qadi M, Mathios D, Sciubba DM, **Gokaslan ZL**, Bydon A. Trends in medicare payments to physicians and implantable medical device makers. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 185.Xu R, Bydon M, Macki M, De la Garza-Ramos R, Belkoff SM, Wolinksy JP, **Gokaslan ZL**, Bydon A. Biomechanical impact of C2 pedicle screw length in an antlantoaxial fusion construct. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 186.Bydon M, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinsky JP, **Gokaslan ZL**, Belzberg AJ, Bydon A, Witham TF. Incidence and prognostic factors of C5 palsy: A clinical study of 1,001 cases and review of the literature. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 187.Bydon M, Macki M, De la Garza-Ramos R, Abt NB, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Development of postoperative C5 palsy is associated with wider posterior decompressions: an analysis of 41 patients. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 188.Bydon M, De la Garza-Ramos R, Macki M, Abt NB, Qadi M, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon A, Witham TF. Spinal instrumentation in patietns with primary spinal infections does not lead to higher recurrent infections. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 189.Bydon M, Xu R, Amin AG, Macki M. De la Garza-Ramos R, Sciubba DM, Wolinksy JP, Bydon A, **Gokaslan ZL**, Witham TF. Safety and efficacy of pedicle screw placement using intraoperative computed tomography: Consecutive series of 1148 pedicle screws. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 190.Bydon M, Macki M, De la Garza-Ramos R, Abt NB, Youssef M, Ma TM, Mathios D, **Gokaslan ZL**, Meleka S, Bydon A. The cost-effectiveness of CT-guided sacroiliac joint injections: A measure of QALY gained. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 191.Bydon M, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon A, Witham TF. Posterolateral fusion alone is associated with a higher reoperation rate than PLF with interbody: An analysis of 124 patients. 8th Annual

- Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 192.Bydon M, Abt NB, De la Garza-Ramos R, Macki M, Mathios D, **Gokaslan ZL**, Bydon A. Physician-owned hospitals: A breakdown of objective and subjective patient care data. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 193. Bydon M, De la Garza-Ramos R, Abt NB, Desai A, Macki M, Sciubba DM, Wolinsky JP, **Gokaslan ZL**, Bydon A. Increasing surgeon volume is associated with less postoperative complications after spine surgery. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 194.Bydon M, Abt NB, De la Garza-Ramos R, Olorundare IO, Macki M, Mathios DM, Sciubba DM, **Gokaslan ZL**, Bydon A. Age is not an independent risk factor in postoperative morbidity after lumbar fusion. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 195.Bydon M, Lin JA, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Time to surgery does not impact outcomes in cauda equine syndrome: An analysis of 48 cases. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 196.Bydon M, Ma TM, Xu R, Macki M, De la Garza-Ramos R, Weingart J, Olivi A, **Gokaslan ZL**, Tamargo RJ, Brem H, Bydon A. Surgical outcomes of craniocervical junction meningiomas: A series of 22 consecutive patients. 8th Annual Bayview Research Symposium. Baltimore, Maryland; December 13, 2013.
- 197. Bydon M, Abt NB, De la Garza-Ramos R, Macki M, Olorundare IO, **Gokaslan ZL**. Bydon A. The Effect of Preoperative Diagnosis in Anterior Lumbar Interbody Fusions: Increased Risk of Postoperative Morbidity in Spinal Stenosis and Spondylolisthesis. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 198.Bydon M, Macki M, De la Garza-Ramos R, Abt NB, **Gokaslan ZL**, Meleka S, Bydon A. The Cost-Effectiveness of CT-Guided Sacroiliac Joint Injections: A Measurement of QALY Gained. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 199.Bydon M, Xu R, Macki M, De la Garza-Ramos R, Kaloostian P, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF. Safety and Efficacy of Pedicle Screw Placement Using Intraoperative Computed Tomography: Consecutive Series of 1148 Pedicle Screws. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 200.Bydon M, Macki M, De la Garza-Ramos R, Kaloostian P, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon A, Witham TF. Incidence and Prognostic Factors of C5 Palsy: A Clinical Study of 1,001 Cases and Review of The Literature. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 201.Bydon M, Mathios D, Macki M, De la Garza-Ramos R, Sciubba DM, Witham TF, Wolinsky JP, **Gokaslan ZL**, Bydon A. Incidence and Time Frame of Reoperation after Posterior Cervical Foraminotomy. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 202.Bydon M, De la Garza-Ramos R, Macki M, Abt NB, Mathios D, Qadi M, **Gokaslan ZL**, Bydon A. Lumbar Fusion versus Non-Operative Management for Treatment of Discogenic Low Back Pain: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. 30th Annual Meeting of the AANs/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 203.Bydon M, Xu R, Santiago-Dieppa D, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF. Adjacent Segment Disease in 501 Cases of Postero-Lateral Instrumented Lumbar Arthrodesis: Floating Fusion versus Distal Construct Including The Sacrum. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 204.Bydon M, Xu R, Macki M, De la Garza-Ramos R, Wolinsky JP, **Gokaslan ZL**, Bydon A. Biomechanical Impact of C2 Pedicle Screw Length in an Atlantoaxial Fusion Construct. 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, Florida; March 5 8, 2014.
- 205.Otake Y, Wang A, Stayman W, Khanna J, Wolinsky JP, Gokaslan ZL, Siewerdsen J. Verification of surgical product and detection of retained foreign bodies using 3D-2D registration in intraoperative mobile radiographs. Computer Assisted Radiology and Surgery (CARS) June 26-29, 2013. Heidelberg, Germany.
- 206.Otake Y, Wang A, Stayman W, Khanna J, Groves M, **Gokaslan ZL**, Siewerdsen J, Kleinszig G, Vogt S. Automatic localization of vertebral levels in C-arm fluoroscopy: evaluation of the LevelCheck algorithm in a preclinical cadaver study with realistic tissue deformation. Computer Assisted Radiology and Surgery (CARS) June 26-29, 2013. Heidelberg, Germany.
- 207. Wang A, Schafer S, Stayman J, Otake Y, Sussman M, Khanna J, **Gokaslan ZL**, Gallia G, Siewerdsen J. Soft-Tissue Imaging in Low-Dose, C-Arm Cone-Beam CT Using Statistical Image Reconstruction. Computer Assisted Radiology and Surgery (CARS) June 26-29, 2013. Heidelberg, Germany.
- 208. Wang A, Otake Y, Stayman J, Uneri A, Kleinszig G, Vogt S, Khanna AJ, Gokaslan ZL, Siewerdsen J. Soft Tissue Visibility

- and Dose Reduction in Mobile C-arm Cone-Beam CT Using Advanced 3D Image Reconstruction. Computer Assisted Radiology and Surgery (CARS) June 26-29, 2013. Heidelberg, Germany.
- 209. Fisher C, Fehlings M, Bilsky M, Dekutiski M, Alessandro L, Williams R, Berven S, Quraishi N, Rhines L, Betteogowda C, **Gokaslan ZL**. A Novel Scientific Model for Rare and often Neglected Neoplastic Conditions: AOSpine Knowladge Forum Tumor International Dataset for Primary Tumors of the Spine. SRS/IMAST 20th International Meeting on Advanced Spine Technologies. July 10-13, 2013. Vancouver, British Columbia Canada.
- 210.Fisher C, Rhines L, Kawahara N, Fourney D, Reynolds J, Fehlings M, Schouten R, Gokaslan ZL. Spinal Instability Neoplastic Score: An Analysis of Reliability and Validity in Radiation Oncologists: An AOSpine Knowladge Forum Tumore Project. SRS/IMAST 20th International Meeting on Advanced Spine Technologies. July 10-13, 2013. Vancouver, British Columbia Canada.
- 211.Bydon M, Ma TM, Xu R, Macki M, Weingart J, Olivi A, **Gokaslan ZL**, Tamargo R, Brem H, Bydon A. Surgical Management of Craniocervial Junction Meningiomas: A Series of 22 Consecutive Patients. Congress of Neurological Surgeons 2013 Annual Meeting. October 19 23, 2013. San Francisco California.
- 212.Bydon M, Xu R, Macki M, Ma TM, Kaloostian P, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon T, Witham T. Safety and Efficacy of Pedicle Screw Placement Using Intraoperative Computed Tomography: Consecutive Series of 1148 Pedicle Screws. Congress of Neurological Surgeons 2013 Annual Meeting. October 19 23, 2013. San Francisco California.
- 213.Bydon M, Xu R, Macki M, Sciubba DM, Wolinksy JP, Witham T, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease After ACDF: Development of Adjacent Segment Disease is More Likely to Occur Above the Index ACDF Level.Congress of Neurological Surgeons 2013 Annual Meeting. October 19 23, 2013. San Francisco California.
- 214.Bydon M, Xu R, Macki M, Ma TM, Kaloostian P, Sciubba DM, Wolinsky JP, Witham T, **Gokaslan ZL**, Bydon A. Adjacent Segment Disease After ACDF: Clinical Outcomes After First Repeat Surgery Versus Second Repeat Surgery.Congress of Neurological Surgeons 2013 Annual Meeting. October 19 23, 2013. San Francisco California.
- 215.Bydon M, Xu R, Santiago-Dieppa D, Macki M, Sciubba DM, Wolinksy JP, Bydon A, **Gokaslan ZL**, Witham T. Long-term outcomes after non-instrumented lumbar arthrodesis. Congress of Neurological Surgeons 2013 Annual Meeting. October 19 23, 2013. San Francisco California.
- 216.Goldstein C, Varga P, **Gokaslan ZL**, Boriani S, Luzzati A, Williams R, Rhines L, Fisher C, Chou D, Dekutoski M, Quraishi N, Bettegowda C, Kawahara N, Fehlings M. Hemangiomas of the spine: results of surgical management and prognostic variables for local recurrence and mortality in a multicenter study. Combined meeting with the Canadian Spine Society and the New Zealand Spine Society 2014. February 25-March 1, 2014. Lake Louise, AB, Canada.
- 217.Zamorano JJ, Fehlings M, Nater A, Tetreault L, Varga P, **Gokaslan ZL**, Boriani S, Fisher C, Rhines L, Bettegowda C, Kawahara N, Chou D. Local recurrence risk factors after surgical resection of spine schwannomas: analysis of 169 patients from a multicenter international database. Combined meeting with the Canadian Spine Society and the New Zealand Spine Society 2014. February 25-March 1, 2014. Lake Louise, AB, Canada.
- 218. Fisher CG, Versteeg A, Boriani S, Varga PP, Dekutoski MB, **Gokaslan ZL**, Williams RP, Reynolds JJ, Fehlings MG, Bettegowda C, Kawahara N, Rhines LD. Chondrosarcomas of the spine: prognostic variables for local recurrence and mortality in a multicenter study. Combined meeting with the Canadian Spine Society and the New Zealand Spine Society 2014. February 25-March 1, 2014. Lake Louise, AB, Canada.
- 219. Zadnik P, Varga P, Bettegowda C, Fisher C, Fehlings M, Quraishi N, Luzzati A, Rhines L, Wolinsky JP, Sciubba D, Dekutoski M, Kawahara N, Boriani S, **Gokaslan ZL**. Survival and recurrence following resection of chordoma in the mobile spine: results of 171 patients from the AOSpine Primary Tumor Knowledge Forum. 82nd American Association of Neurological Surgeons Annual Scientific Meeting. April 5-9, 2014. San Francisco, CA.
- 220.Fisher CG, Versteeg A, Boriani S, Varga PP, Dekutoski MB, **Gokaslan ZL**, Williams RP, Reynolds JJ, Fehlings MG, Bettegowda C, Kawahara N, Rhines LD. Chondrosarcomas of the spine: prognostic variables for local recurrence and mortality in a multicenter study. 82nd American Association of Neurological Surgeons Annual Scientific Meeting. April 5-9, 2014. San Francisco CA, USA.
- 221.Bydon M, Macki M, De la Garza-Ramos, McGovern K, Ma M, **Gokaslan ZL**, Bydon A. Gold Fiducial in The Thoracic Spine: A Cost Comparison with Standard Percutaneous Vertebroplasty. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 222.Rhines LD, Dirks MS, Boriani S, Luzzati A, Fehlings MG, Fisher CG, Dekutoski MB, Williams R, Quraishi NA, **Gokaslan ZL**, Bettegowda C, Kawahara N, Varga PP. Ewing's sarcoma of the spine: prognostic variables for recurrence and survival in surgically treated patients. 82nd American Association of Neurological Surgeons Annual Scientific Meeting. April 5-9, 2014. San Francisco, CA, USA.
- 223. Varga PP, Macki M, Bydon M, Boriani S, Fisher CG, Rhines LD, Chou D, Luzzati A, Reynolds JJ, Kawahara N, Bettegowda C, **Gokaslan ZL**. Long-Term Outcomes in Primary Spinal Osteochondroma: A Multicenter Study of 27 Patients. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.

- 224. Quraishi NA, Boriani S, Varga P, Luzzati A, **Gokaslan ZL**, Fehlings MG, Fisher C, Dekutoski M, Rhines L, Reynolds J, Bettegowda C, Kawahara N, Williams R. A multi-center retrospective cohort study of spinal osteoid osteomas: surgical treatment and local recurrence results. 82nd American Association of Neurological Surgeons Annual Scientific Meeting. April 5-9, 2014. San Francisco, CA, USA.
- 225.Bydon M, Lin J, Macki M, De la Garza-Ramos R, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**, Bydon A. Cauda Equina Syndrome: The Impact of Time as a Continuous Variable. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 226. Varga PP, Macki M, Bydon M, Boriani S, Fisher CG, Rhines LD, Chou D, Luzzati A, Reynolds JJ, Kawahara N, Bettegowda C, Sciubba D, Wolinsky JP, **Gokaslan ZL**. Long-term outcomes in primary spinal osteochondroma: a multicenter center study of 27 patients. 82nd American Association of Neurological Surgeons Annual Scientific Meeting. April 5-9, 2014. San Francisco, CA, USA.
- 227. Zamorano JJ, Fehlings M, Nater A, Tetreault L, Varga P, **Gokaslan ZL**, Boriani S, Fisher C, Rhines L, Bettegowda C, Kawahara N, Chou D. Local recurrence risk factors after surgical resection of spine schwannomas: analysis of 169 patients from a multicenter international database. 82nd American Association of Neurological Surgeons Annual Scientific Meeting. April 5-9, 2014. San Francisco, CA, USA.
- 228.Bydon M, Macki M, De la Garza-Ramos R, Mathios D, Abt NB, Sciubba DM, Wolinsky JP, **Gokaslan ZL**, Witham TF, Bydon A. Posterolateral Fusion Alone is Associated with A Higher Reoperation Rate than Posterolateral Fusion with Interbody Placement: An Analysis of 137 Patients. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 229.Bydon M, Abt NB, Olorundare IO, De la Garza-Ramos R, Macki M, Sciubba DM, **Gokaslan ZL**, Bydon A. Age is Not and Independent Risk Factor in Postoperative Morbidity after Lumbar Fusion: An Analysis of 1,352 Patients Stratified by Decade Cohorts. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 230.Bydon M, De la Garza-Ramos R, Xu R, Macki M, Abt NB, Sciubba DM, Witham TF, Wolinksy JP, **Gokaslan ZL**, Bydon A. Instrumented Lumbar Fusion Outcomes Stratified by Preoperative Diagnosis: An Analysis of 790 Patients. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 231.Bydon M, Desai A, De la Garza-Ramos R, Abt NB, Macki M, **Gokaslan ZL**, Bydon A. Increasing Surgeon Volume is Associated with Less Postoperative Complications After Spine Surgery. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5– 9, 2014.
- 232.Bydon M, Abt NB, De la Garza-Ramos R, Macki M, Mathios DM, **Gokaslan ZL**, Bydon A. Physician-Owned Hospitals: A Breakdown of Objective and Subjective Patient Care Data. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 233.Bydon M, De la Garza-Ramos R, Macki M, Sciubba DM, Wolinksy JP, **Gokaslan ZL**, Bydon A, Witham TF. Spinal Instrumentation in Patients with Primary Spinal Infections Does Not Lead to Higher Recurrent Infection Rates: An Analysis of One Hundred and Eighteen Cases. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 234.Bydon M, Macki M, De la Garza-Ramos R, Abt NB, Sciubba DM, Wolinksy JP, Witham TF, **Gokaslan ZL**, Bydon A. A Wider Posterior Decompression May Increase the Risk of C5 Palsy: An Analysis of 41 Cases. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 235.Bydon M, De la Garza-Ramos R, Macki M, Abt NB, Qadi M, Gokaslan ZL, Bydon A. Trends in Medicare Payments to Physicians and Implantable Medical Device Makers. 82nd AANS Annual Scientific Meeting. San Francisco, California; April 5 9, 2014.
- 236.Bydon M, Xu R, Santiago-Dieppa D, Macki M, De la Garza-Ramos R, Abt NB, Weingart J, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF. Adjacent segment disease in 511 cases of postero-lateral instrumented lumbar arthrodesis: Floating fusion versus distal construct including the sacrum. 2014 Annual Meeting of the Lumbar Spine Research Society. Chicago, Illinois; May 1 2, 2014.
- 237.Bydon M, Santiago-Dieppa D, Xu R, De la Garza-Ramos R, Macki M, Weingart J, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF. Long-term outcomes after non-instrumented lumbar arthrodesis. 2014 Annual Meeting of the Lumbar Spine Research Society. Chicago, Illinois; May 1 2, 2014.
- 238.Bydon M, Abt NB, Olorundare IO, De la Garza-Ramos R, Macki M, McGovern K, Sciubba DM, Wolinsky JP, Witham TF, **Gokaslan ZL**. Age is Not an Independent Risk Factor in Postoperative Morbidity after Lumbar Fusion: An Analysis of 1,352 Patients Stratified by Decade Cohorts. 2014 Annual Meeting of the Lumbar Spine Research Society. Chicago, Illinois; May 1 2, 2014.
- 239.Bydon M, De la Garza-Ramos R, Xu R, Macki M, Abt NB, Sciubba DM, Wolinsky JP, Bydon A, **Gokaslan ZL**, Witham TF. Patients with Degenerative Disc Disease have The Highest Rates of Reoperation after Lumbar Fusion: An Analysis of 790 Patients Based on Preoperative Diagnosis. 2014 Annual Meeting of the Lumbar Spine Research Society. Chicago, Illinois; May 1 2, 2014.

- 240.Bydon M, De la Garza-Ramos R, Macki M, Baker A, Sciubba DM, Witham TF, Wolinsky JP, **Gokaslan ZL**, Bydon A. Lumbar Fusion versus Non-operative Management for Treatment of Discogenic Low Back Pain: A Systematic Review and Meta-analysis of Randomized Controlled Trials. 2014 Annual Meeting of the Lumbar Spine Research Society. Chicago, Illinois; May 1 2, 2014.
- 241. Varga P, Szoverfi Z, Rhines L, Fisher C, Boriani S, Dekutoski M, Quraishi C, Fehlings M, **Gokaslan ZL.** Sacral chardoma: prognostic variables for local recurrence and overall survival. World Forum for Spine Research. May 15-17, 2014. Xi'an, China.
- 242. Varga P, Macki M, Bydon M, Sciubba DM, Wolinsky JP, Fisher CG, Reynolds JJ, Rhines LD, Chou D, **Gokaslan ZL**. Long-term outcomes in primary spinal osteochondroma: A multicenter study of 27 patients. EuroSpine. Lyon, France; October 1–3, 2014.
- 243.Goldstein C, Varga P, **Gokaslan ZL**, Boriani S, Luzzati A, Williams R, Rhines L, Fisher C, Chou D, Dekutoski M, Quraishi N, Bettegowda C, Kawahara N, Fehlings M. Hemangiomas of the spine: results of surgical management and prognostic variables for local recurrence and mortality in a multicenter study. EuroSpine. Lyon, France; October 1–3, 2014.
- 244.Lo SF, Otake Y, Puvanesarajah V, Kleinszig G, Vogt S, **Gokaslan ZL**, Aygun N, Siewerdsen J. A Clinical Evaluation of LevelCheck for Automatic Localization of Target Vertebrae in Spine Surgery (electronic poster). Annual Meeting of the North American Spine Society. San Francisco CA, November 2014.
- 245.Uneri A, Otake Y, Wang AS, Kleinszig G, Vogt S, Gallia GL, Rigamonti D, Wolinsky JP, Gokaslan Z, Khanna AJ, and Siewerdsen JH, "Dual-projection 3D-2D registration for surgical guidance: Preclinical evaluation of performance and minimum angular separation," Proc. SPIE Medical Imaging: Image-Guided Procedures, Robotic Procedures, and Modeling (2014).
- 246.Uneri A, Stayman JW, De Silva T, Wang AS, Kleinszig G, Vogt S, Wolinsky JP, **Gokaslan ZL**, Siewerdsen J. Known-component 3D-2D registration for image guidance and quality assurance in spine surgery pedicle screw placement. SPIE Medial Imaging. San Francisco, Califonia; February 7-12, 2015.
- 247. Marinetto E, A, De Silva T, Reaungamornrat S, Zbijewski W, Kleinszig G, Wolinsky JP, **Gokaslan ZL**, Pascau J, Siewedsen J. Intraoperative Fusion Of 3D Ultrasound And C-Arm Cone Beam CT: Feasibility And Characterization For Real-Time Guidance Of Needle Insertion. 29th Annual Computer Assisted Radiology and Surgery. Barcelona, Spain; June 24-27, 2015.
- 248.De Silva T, Ketcha M, Uneri A, Yi T, Vogt S, Kleinszig G, Aygun N, Lo SF, Wolinsky JP, **Gokaslan ZL**, Siewerdsen J. Development And Clinical Evaluation Of 3D-2D Registration (LevelCheck) For Vertebral Level Localization In Spine Surgery. 29th Annual Computer Assisted Radiology and Surgery. Barcelona, Spain; June 24-27, 2015.
- 249.Peter Pal Varga, MD; Ziya L. Gokaslan, MD; Charles Fisher, BS, MD, FRCSC, MHSc; Stefano Boriani, MD; Wei-Lien Wang, MD; Aron Lazary, PhD; Niccole Germscheid, MS; Chetan Bettegowda, MD, PhD; StephenYip, MD, PhD; Laurence D. Rhines, MD. Prognostic Significance of T Gene SNP Rs2305089 in Individuals with Spinal Column Chordoma, presented at the 50th Annual Scoliosis Research Society Meeting, September 30 October 3, 2015.
- 250.De la Garza-Ramos R, Kosztowski T, Xu R, Ramhmdani S, Sciubba D, Wolinsky J, Witham T, **Gokaslan Z**, Bydon A. Long-term Clinical Outcomes following Three-and Four-level Anterior Cervical Discectomy and Fusion. 67th Southern Neurosurgical Society. San Antonio, Texas; March 2-5, 2016.
- 251.Ramhmdani S, Xu R, Kosztowski T, De la Garza-Ramos R, Sciubba D, Wolinsky P, Witham T, **Gokaslan Z**, Bydon A. Thoracic Ossification of Ligamentum Flavum. 67th Southern Neurosurgical Society. San Antonio, Texas; March 2-5, 2016.
- 252.Presenter for the 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves. "Survival and Clinical Outcomes in Patients with Metastatic Epidural Spinal Cord Compression: Results from the AOSpine Prospective Multi-Centre Study of 142 Patients." Orlando FL, March 16-19, 2016.
- 253.M. Fehlings, A. Nater, L. Tetreault, B. Kopjar, P. Arnold, M. Dekutoski, J. Finkelstein, C. Fisher, J. France, **Z. Gokaslan**, L. Rhines, P. Rose, E. Massicotte, A. Sahal, J. Schuster, A. Vaccaro. Survival and Clinical Outcomes in Patients with Metastatic Epidural Spinal Cord Compression: Results from the AOSpine Prospective Multi-Centre Study of 142 patients. 50th Annual Global Spine Congress, , UAE, April 12-17, 2016.
- 254.A. Nater, M. Fehlings, L. Tetreault, B. Kopjar, P. Arnold, M. Dekutoski, J. Finkelstein, C. Fisher, J. France, Z. Gokaslan, L. Rhines, P. Rose, J. Schuster, A. Vaccaro, A. Sahgal, E. Massicotte. Prognostic Factors for Survival in Surgical Series of Symptomatic Metastatic Epidural Spinal Cord Compression: A Prospective North American Multi-Centre Study in 142 patients. 50th Annual Global Spine Congress, Dubai, UAE, April 12-17, 2016.
- 255.A. Kannan, H. Mai, W. Hsu, A. Hilibrand, A. Nassr, P. Arnold, M. Fehlings, V. Traynelis, Z. Gokaslan, T. Mroz, M. Bydon, Z. Smith, E. Massicotte, K. D. Riew. Vertebral Artery Injury in Cervical Spine Surgery: Results from AOSpine North America Multicenter Study on 16,582 Patients. 50th Annual Global Spine Congress, Dubai, UAE, April 12-17, 2016.
- 256.Bydon M, Macki M, De la Garza-Ramos R, Murgatroyd AA, Mullinix KP, Sun X, Bydon A, Sciubba DM, Cunningham BW, Gokaslan ZL. Comprehensive Biomechanical Analysis of Three Lumbopelvic Reconstruction Techniques Following Total Sacrectomy An In Vitro Human Cadaveric Model. Washington, D.C.; July 13-16, 2016.
- 257. Cunningham B, Bydon M, Murgatroyd A, Mullinix K, Gokaslan ZL, McAfee P. Comprehensive Biomechanical Analysis of

- Three Lumbopelvic Reconstruction Techniques following Total Sacrectomy: An In Victro Human Cadaveric Model. 31st Annual Meeting of the North American Spine Society, Boston, MA, October 26-29, 2016.
- 258. Versteeg AL, Sahgal A, Lazary A, Rhines LD, Sciubba DM, Schuster JM, Weber M, Fehlings MG, Clarke MJ, Arnold PM, Gokaslan ZL, Fisher CG, AOSpine Knowledge Forum Tumor. Spine Oncology Study Group Outcomes Questionnaire: a valid and reliable patient reported outcome measure for spine oncology patients. 30th European Musculo-Skeletal Oncology Society (EMSOS), Budapest, Hungary, April 26-28, 2017
- 259.Bond M, Versteeg A, Sahgal A, Varga P, Sciubba D, Schuster J, Weber M, Clarke M, Rhines L, Boriani S, Bettegowda C, Fehlings M, Arnold P, **Gokaslan Z**, Fisher C. Evidence from the Epidemiology, Process and Outcomes of Spine Oncology (EPOSO) cohort: Surgical versus Radiation Therapy for the Treatment of Cervical Metastases. Spine Summit 2018 34th Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves, Orlando, FL, USA, March 14-17, 2018.
- 260.Ishida W., Elder BD., Ramhmdani S., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Witham TF, Sciubba DM., and Lo SF. Clinical and Radiographical Outcomes of S2-Alar-Iliac Screw Instrumentation Via a Freehand Technique for Lumbosacropelvic Fixation in Adult Patients: Minimum Follow-up of Two Years.Lumbar Spine Research Society 2018, Chicago, IL, USA, April 5-6 [Oral Presentation]
- 261. Ishida W., Elder BD., Ramhmdani S., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Safety Profile of Lumbosacropelvic Fixation in Elderly Patients: Comparison Between S2-Alar-Iliac Screws and Iliac Screws. Lumbar Spine Research Society 2018, Chicago, IL, USA, April 5-6 [Oral Presentation]
- 262. Aoude A, Versteeg A, Weber M, Sahgal A, Varga P, Sciubba D, Schuster J, Clarke M, Rhines L, Boriani S, Bettegowda C, Fehlings M, Arnold P, Gokaslan Z, Fisher C. Steroids for the management of neurological deficits in patients undergoing surgical treatment for metastatic spine disease: a prospective case series. Global Spine Congress 2018, Singapore, Singapore, May 2-5, 2018.
- 263. Versteeg AL, Sahgal A, Rhines LD, Sciubba DM, Schuster JM, Weber M, Fehlings MG, Clarke MJ, Arnold PM, Gokaslan ZL, Fisher CG, AOSpine Knowledge Forum Tumor. The refined Spine Oncology Study Group Outcome Questionnaire2.0 (SOSGOQ2.0): a reliable and valid disease-specific outcome measure Global Spine Congress 2018, Singapore, Singapore, May 2-5, 2018.
- 264. Sahgal A, Versteeg AL, Rhines LD, Sciubba DM, Schuster JM, Weber MH, Varga PP, Boriani S, Bettegowda C, Fehlings MG, Clarke MJ, Arnold PM, **Gokaslan ZL**, Fisher CG, AOSpine Knowledge Forum Tumor. A multicenter prospective cohort study evaluating quality of life after radiation or surgery for potentially unstable spinal metastases. CARO 2018 (Canadian Association of Radiation Oncology), Montreal, QC, Canada, September 12-15, 2018.
- 265.Ishida W., Ramhmdani S., Perdomo PA., Elder BD., Holmes C., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Matched-Pair Cohort Study of Spinal Surgery in HIV-Infected Patients: Minimum One-Year Follow-Up. 2018 North American Spine Society Annual Meeting, September 26-29, 2018, Los Angeles, CA [Oral Presentation]
- 266. Ishida W., Ramhmdani S., Perdomo PA., Elder BD., Holmes C., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Single-Center, Matched-Pair Comparative Study of Spine Surgery in Patients with Solid Organ Transplantation: Short- and Long-Term Clinical Outcomes. 2018 North American Spine Society Annual Meeting, September 26-29, 2018, Los Angeles, CA [Oral Presentation]
- 267. Ishida W., Ramhmdani S., Perdomo PA., Elder BD., Holmes C., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Predictors of Postoperative Dysphasia in Adult Patients After Occipitocervical Fusion: Occipital and External Acoustic Meatus to Axis Angle. 2018 North American Spine Society Annual Meeting, September 26-29, 2018, Los Angeles, CA [Poster]
- 268.Ishida W., Elder BD., Ramhmdani S., Perdomo PA., Holmes C., Theodore N., **Gokaslan ZL,** Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Safety Profile of Lumbosacropelvic Fixation in Elderly Patients: Comparison Between S2-Alar-Iliac Screws and Iliac Screws. 2018 North American Spine Society Annual Meeting, September 26-29, 2018, Los Angeles, CA [Poster]
- 269. Versteeg A, Sahgal A, Rhines LD, Sciubba DM, Schuster JM, Bettegowda C, Fehlings MG, Clarke MJ, Arnold PM, Gokaslan ZL, Fisher CG. A multicenter prospective cohort study evaluating quality of life after radiation or surgery for potentially unstable spinal metastases. North American Spine Society 33rd Annual Meeting 2018, Los Angeles, CA, USA, September 26-29, 2018
- 270.Ishida W., Elder BD., Ramhmdani S., Perdomo PA., Holmes C., Theodore N., **Gokaslan ZL,** Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Clinical and Radiographical Outcomes of S2-Alar-Iliac Screw Instrumentation Via a Freehand Technique for Lumbosacropelvic Fixation in Adult Patients: Minimum Follow-up of Two Years. 2018 Congress of Neurological Surgeons, Annual Meeting, October 6th-10th, 2018, Houston, TX
- 271. Ishida W., Elder BD., Ramhmdani S., Perdomo PA., Holmes C., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Safety Profile of Lumbosacropelvic Fixation in Elderly Patients: Comparison Between

- S2-Alar-Iliac Screws and Iliac Screws. 2018 Congress of Neurological Surgeons, Annual Meeting, , October 6th-10th, 2018, Houston, TX[Poster]
- 272.Ramhmdani S., Ishida W., Xia Y., Ramos RDG., Elder BD., **Gokaslan ZL,** Theodore N., Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Clinical Outcomes of Posterior Atlantoaxial Fusion with Use of Bone Morphogenetic Protein-2 in Adult Patients Without Supplemental Autogenic/Allogenic Bone Graft. 2018 Congress of Neurological Surgeons, Annual Meeting, October 6th-10th, 2018, Houston, TX[Poster]
- 273. Ishida W., Ramhmdani S., Perdomo PA., Elder BD., Holmes C., Theodore N., Gokaslan ZL, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Matched-Pair Cohort Study of Spinal Surgery in HIV-Infected Patients: Minimum One-Year Follow-Up. 2018 Congress of Neurological Surgeons, Annual Meeting, October 6th-10th, 2018, Houston, TX[Poster]
- 274.Ishida W., Ramhmdani S., Perdomo PA., Elder BD., Holmes C., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Single-Center, Matched-Pair Comparative Study of Spine Surgery in Patients with Solid Organ Transplantation: Short- and Long-Term Clinical Outcomes. 2018 Congress of Neurological Surgeons, Annual Meeting, October 6th-10th, 2018, Houston, TX[Poster]
- 275. Ishida W., Ramhmdani S., Perdomo PA., Elder BD., Holmes C., Theodore N., **Gokaslan ZL**, Wolinsky JP., Bydon A., Sciubba DM., Witham TF, and Lo SF. Predictors of Postoperative Dysphasia in Adult Patients After Occipitocervical Fusion: Occipital and External Acoustic Meatus to Axis Angle. 2018 Congress of Neurological Surgeons, Annual Meeting, October 6th-10th, 2018, Houston, TX [Poster]

SCHOLARLY WORK PUBLISHED IN OTHER MEDIA

- 1. **Gokaslan ZL**: Management of metastatic spinal tumors (video recording). Clinical Oncology Grand Rounds, The University of Texas M. D. Anderson Cancer Center, Video Production Services, Houston, TX, 1996.
- 2. **Gokaslan ZL**: Management of sacral tumors (video recording). Clinical Oncology Grand Rounds, The University of Texas M. D. Anderson Cancer Center, Video Production Services, Houston, TX, 1997.
- 3. Cover, Journal of Neurosurgery, Vol. 87: Color illustration of operative field during Stage II of a total sacrectomy (dorsal view of the lumbosacral region), 1997.
- 4. Cover, Journal of Neurosurgery, Vol. 89: Color illustration of a thoracic vertebrectomy, reconstruction with methylmethacrylate, and placement of anterior locking plate and screw construct, 1997.
- 5. Cover, Journal of Neurosurgery, Vol. 91: Color illustration of Occipitocervicothoracic fixation with inset of closer view depicting Wisconsin interspinous process wiring technique, 1999.
- 6. Cover, Neurosurgical Focus, 6 (5) Article 3, Combined Chest wall Resection with Vertebrectomy and Spinal Reconstruction for the Treatment of Pancoast Tumors, 1999.
- 7. Cover, AANS: Journal of Neurosurgery CD-ROM Vol 90-95 (January 1999-December 2001).
- 8. Cover, Journal of Neurosurgery: Spine, Vol 92. Color illustration of cervical vertebra with anterior locking plate/screws, 2000
- 9. Cover, Journal of Neurosurgery, Vol 92. Color illustration of spinal-pelvic fixation technique, 2000.
- 10. Cover, AANS: Journal of Neurosurgery CD-ROM Vol. 92-97 (January 2000-December 2002).
- 11. Cover, Journal of Neurosurgery: Spine, Vol 94. Color illustration of T8 vertebrectomy, 2001.
- 12. Cover, Journal of Neurosurgery: Spine, Vol. 95(2). Color illustration of L4 vertebrectomy, 2001.
- 13. Cover, Journal of Neurosurgery: Vol. 95(4). Color illustration of insular tumor resection, 2001.
- 14. Trap Door Approach to the Cervicothoracic Junction and Vertebrectomy for Spinal Tumors (Video Recording), CNS Meeting, Philadelphia, PA 2002.
- 15. Cover, Journal of Neurosurgery: Spine, Vol. 97(3). Color illustration of en-block multilevel cervical chordoma resection, 2002.
- 16. Cover, Neurosurgery: Vol. 51(5). Color illustration of cervical spinal cord ependymoma resection, 2002.
- 17. **Gokaslan ZL**. Trap Door Approach to Cervicothoracic Junction and Vertebrectomy for Spinal Metastases. (Video recording), CNS Meeting, Philadelphia, 2002.
- 18. **Gokaslan ZL**. Spinal Column Tumors. Practical Reviews in Neurosurgery for Johns Hopkins Hospital Co-sponsored CME Activity. (Audio recording), May 2003.
- 19. **Gokaslan ZL**, Weinberg JS. Surgical Management of Spinal Cord Ependymomas. (Video recording), CNS Meeting, Denver, CO 2003.
- 20. Gokaslan, ZL: "En bloc resection of primary cervical spine tumors" (video recording). The Johns Hopkins Hospital for

- "Digital Masters", recorded May 21, 2004.
- 21. Gokaslan ZL, Riley L; The Johns Hopkins Guide to Back Pain (Patient education brochures), 2004.
- 22. **Gokaslan ZL**, Haque R: Active correction of kyphotic deformity using an anterior distractible cage via a posterior approach (Poster Presentation). 2005 AANS Annual Meeting, April 16-21, 2005.
- 23. **Gokaslan ZL**, Haque R: Spinal pelvic reconstruction after total sacrectomy for en bloc resection of a giant sacral chordoma. 2005 AANS Annual Meeting, April 16-21, 2005.
- 24. Skolasky RL, Daruwalla Z, Cohen D, Kebaish K, **Gokaslan ZL**, Long D, Riley L: Examining the utility of pre-existing hospital records as a data source for a quality of care study of lumbar surgeries. NASS Annual Meeting, September 27-October 1, 2005.

INVITED PRESENTATIONS

Presentations at National or International Conferences

- 1. Faculty of AANS/CNS: Tumors of the sacral region. Joint Section on Disorders of the Spine and Peripheral Nerves of the AANS/CNS, Miami, FL, February, 1996.
- 2. Faculty of AO ASIF: Comprehensive and Interactive Spine Course: Neurosurgical and orthopedic spinal concepts and techniques. Lecture: Neoplastic disease of the spine. Hands-on course: an overview of the Universal Spinal System. Vancouver, Canada, April, 1996.
- 3. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Houston, TX, November 10, 1997.
- 4. Faculty of AANS: Sacral Neoplasms: Management and biomechanical implication. AANS, Philadelphia, PA, April, 1998.
- 5. Faculty of AO ASIF: Comprehensive and Interactive Spine Course: When decompression alone. An overview of anterior thoracolumbar plate/screw system. Hands-on course: Spinal Instrumentation. Quebec City, Canada, July, 1998.
- 6. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Baltimore, MD, November, 1998.
- 7. Faculty of AANS: Practical Clinic Seminar: Surgical exposure, decompression, and stabilization of the cervical spine. AANS, New Orleans, LA, April, 1999.
- 8. Faculty of CNS: Management strategies for spinal neoplasms. Luncheon Seminar. CNS, Boston, MA, October/November, 1999 (Scientific Program Book p 113).
- 9. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Baltimore, MD, May, 1999.
- 10. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Los Angeles, CA, May, 2000.
- 11. Faculty of CNS: "Anterior and Posterior Approaches and Stabilization Techniques for the Thoracolumbar Spine." Luncheon Seminar, San Antonio, TX, September, 2000.
- 12. Faculty of CNS, Practical Clinic Seminar: "Management of Disorders of the Cervical Spine." CNS, San Antonio, TX, September, 2000.
- 13. Modification of Oral Board Review Course. Discussion sponsored by the Education Committee (PDP) of the AANS, San Antonio, TX, September, 2000.
- 14. Faculty of AO ASIF: "Evaluation and Diagnosis of Axial Pain vs. Radiculopathy vs. Myelopathy", "Transoral Decompression", "Metastatic Disease of the Spine." Comprehensive and Interactive Spine Course. Captiva, FL, September, 2000.
- 15. Faculty of AO ASIF: "Claw Principles & Assembly", "Anatomy & Mechanics of the Cervical Spine Fixation Options", "Case Studies: Atlanto-axial and Occipital Cervical Trauma", "Mechanical & Anatomic Issues Regarding Implant Placement & Stability", "Introduction to Advanced Topics How not to do AO." Spine Resident Course, Rosemont, IL, October 7, 2000.
- 16. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Houston, TX, November 5, 2000.
- 17. Invited Faculty: 73rd AO ASIF Interactive spine course: Degenerative and reconstructive spinal surgery, AO International, Davos, Switzerland, December, 2000.
- 18. Invited Faculty: "Contemporary Surgical Management of Spinal and Sacral Tumors", 4th Foundations of Clinical Cancer Research Symposium sponsored by The University of Texas M. D. Anderson Cancer Center, Houston, TX, March 8-9, 2001.
- 19. Faculty of AANS: "Anterior & Combined Approaches to the Thoracic, Lumbar Spine, and Sacrum", AANS Breakfast Seminar, Toronto, Ontario, Canada, April 21-26, 2001.
- 20. Faculty of AO ASIF: "Training and Research Opportunities in Spinal Oncology." AANS Resident's Lounge in Toronto, Ontario, Canada, April 23-25, 2001.

- 21. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Savannah, GA, May 29, 2001.
- 22. Invited Faculty: (Co-Chairman) "Metastatic Disease of the Spine", "Transoral Decompression?", "Metastatic Disease of the Spine." AO ASIF Comprehensive Spine Course, Tucson, AZ, May 31, June 3, 2001.
- 23. Invited Guest Lecturer: "Management of Cancer of the Cervicothoracic Junction." 36th meeting of the Canadian Congress of Neurological Sciences, Halifax, Nova Scotia, Canada, June 12-16, 2001.
- 24. Invited Guest Lecturer: "Management and Reconstruction of Complex Neoplastic Disease", "Fracture Tumor Roundtable Case Discussions." 8th International Meeting on Advanced Spine Techniques (IMAST), Paradise Island, Bahamas, July 12-14, 2001.
- 25. Faculty of AO ASIF: "Transoral Decompression?", "Metastatic Disease of the Spine", "Evaluation and Diagnosis of Degenerative Cervical Spine Disease." AO ASIF Interactive Spine Course, Marco Island, FL, September 6-9, 2001.
- 26. Faculty of CNS: "Lateral Thoracotomy Approaches" Practical Clinic Seminar, "Approaches to Spinal Neoplasms" Luncheon Seminar. 51st CNS Annual Meeting, San Diego CA, September 29-October 4, 2001.
- 27. Invited Faculty:75TH AO ASIF Interactive Spine Course: "Upper Cervical Spine Tumors", "Metastatic Spine Disease; Posterior Approach", Is There a Place for Odontoid Resection in Rheumatoid Myelopathy". AO International Spine Course, Davos, Switzerland, December, 2001.
- 28. Invited Guest Lecturer: Combined Anterior Posterior Approach for Radical Resection of Spinal Tumors. 50th National Congress of Italian Neurosurgical Society. Rome, Italy, December 4-7, 2001.
- 29. Faculty of AANS/CNS: Moderator "Challenging Spine Tumor Cases" at the 18th Annual Meeting, Orlando, Florida March 1, 2002.
- 30. Faculty of AANS: Panelist "Evaluation and Management of Primary and Metastatic Vertebral Column Neoplasms" at the 2002 Annual Meeting, Chicago, IL, April 6-11, 2002.
- 31. Faculty of AO ASIF: Moderator of Practical Exercise III: (A) Anterior Instrumentation for Thoracolumbar Trauma (B) Pedicle Screw Insertion at the AO ASIF Comprehensive & Interactive Spine Courses, Coronado, CA, April 18-21, 2002.
- 32. Faculty of AO ASIF: "Spine Tumors" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Coronado, CA, April 18-21, 2002.
- 33. Faculty of AO ASIF: "Early Surgery for Thoraco-Lumbar Fractures" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Coronado, CA, April 18-21, 2002.
- 34. Faculty of AO ASIF: "Lumbar Decompression for Spinal Stenosis" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Coronado, CA, April 18-21, 2002.
- 35. Faculty of AO ASIF: "Transoral Decompression Techniques" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Coronado, CA, April 18-21, 2002.
- 36. Chairman, Instructional Course #1G "Management & Reconstruction of Complex Neoplastic Disease" presented at the 9th International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 22-25, 2002.
- 37. Faculty, Roundtable Discussion #2B "Fractures & Tumors" presented at the 9th International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 22-25, 2002.
- 38. Faculty of CNS, Moderator: Approaches to Spinal Neoplasms (Primary and Metastatic Tumors) CNS Annual Meeting, Philadelphia, PA, 2002.
- 39. Faculty of CNS, Practical Clinic Seminar, "Surgical Approaches and Instrumentation of Thoracolumbar Spine" CNS Annual Meeting, Philadelphia, PA, 2002.
- 40. Faculty of AO ASIF:1. Evaluation of axial pain, radiculopathy and myelopathy 2. Transoral Decompression for Basilar Invagination 3. Metastatic Spine Tumors, Newport, RI, October 6, 2002.
- 41. Invited Faculty: AO North America-CASS Fellows Retreat, Keynote Address "Advances in Neoplastic Management, Banff, Alberta, Canada, March 20-23, 2003.
- 42. Faculty of Johns Hopkins Neurosurgery: "Future of Spinal Neurosurgery" presented at the Johns Hopkins Medical and Surgical Association Biennial Symposium, Baltimore, MD, May, 2003.
- 43. Faculty of AANS: Oral Board Preparation Course: Comprehensive Review: Spinal Surgery and Instrumentation, Cincinnati, Ohio, May 12, 2003.
- 44. Faculty of AO ASIF: "Primary Tumor Management" and "Metastatic Disease Management" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Annapolis, MD, June 21, 2003.
- 45. Faculty of AO ASIF: "Case Presentation: Cervical Myelopathy, Postoperative Neurological Deficit, and Postoperative Lumbar Infections" presented at the AO ASIF Degenerative Spine Symposium, Coronado, CA, July 19-20, 2003.
- 46. Invited Faculty, Moderator: "Spinal Neoplasms-Radical Surgical Resection of Primary Tumors", and Faculty participant in General Session-Spinal Tumors, "Surgical Outcome I Patients With Hematogenous Lung Cancer Metastases to the Spine: A Series of 37 Patients", Spine Across the Sea, Maui, Hawaii, July 29-31, 2003.
- 47. Faculty of AO ASIF: "Pearls: Osteoporotic Fractures, Complications of Cervicothoracic Trauma-Anterior Approach,

- Anterior Surgery for Thoracolumbar Injuries" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Ouebec City, Canada, August 7-10, 2003.
- 48. Faculty of AO ASIF, Lecturer and Moderator: "Tumors of the Craniocervical Junction, C1-C2 Transarticular Screw Fixation, C1-C2 Pedicle Screw Fixation, Occipital Cervical Fusion" presented at the AO ASIF Comprehensive & Interactive Spine Courses, Rosemont, Illinois, August 17, 2003.
- 49. Faculty of AO ASIF, Moderator: "Surgical Management of Primary Spinal Neoplasms, Transmandibular Approach for En Bloc Resection" presented at AO Spine Tumor Symposium, Rochester, Minnesota, September 5, 2003.
- 50. Invited Faculty, Co-Moderator: Complex Cervical Reconstruction, NASS, Montreal, Quebec, Canada, October 31-November 2, 2003.
- 51. Invited Faculty: "Spinal and Back Pain" presented at the Johns Hopkins Medicine's women's health conference "A Woman's Journey", November 8, 2003.
- 52. Invited Faculty, Moderator and Lecturer: "Neoplastic Disease of the Cerevical Spine, Radical resection of primary cervical spinal tumors and reconstruction" presented at CSRS Annual Meeting Symposium, Scottsdale, Arizona, December 11, 2003.
- 53. Faculty of AO ASIF: "Trauma/degenerative, Degenerative/deformity, Complex spine reconstruction" Comprehensive and Interactive Spine Courses. Davos Platz, Switzerland, December 14-19, 2003.
- 54. Faculty of AO ASIF, Lecturer: "Primary spinal tumor reconstruction" and "Metastatic spinal tumor reconstruction" 4th Live Spine Surgery Symposium. Bern, Switzerland, February 6-7, 2004.
- 55. Faculty of AO ASIF, Course Director, Moderator: "Complex Spine Tumors" Advanced Concepts in the Management of Spinal Disorders. Comprehensive and Interactive Spine Courses, Sun Valley, Idaho, February 19-22, 2004.
- 56. Faculty of AANS/CNS: Moderator, Master Surgeon Series: Thoracolumbar Decisions in Spinal Surgery: Patient and Technique Selection. Joint Section on Disorders of the Spine and Peripheral Nerves of the AANS/CNS, San Diego, California, March 17, 2004.
- 57. Faculty of AANS/CNS: Presenter, "Treatment of Metastatic Disease of the Thoracolumbar Spine: Anterior, Posterior or Both When and Why?" Joint Section on Disorders of the Spine and Peripheral Nerves of the AANS/CNS, San Diego, California, March 17, 2004.
- 58. Faculty of AANS/CNS: Co-moderator, Lumbar Surgery: Old Techniques, New Technologies "How Are New Technological Advances Changing Traditional Spinal Surgery?", Joint Section on Disorders of the Spine and Peripheral Nerves of the AANS/CNS, San Diego, California, March 17, 2004.
- 59. Faculty of AO ASIF: Lecturer, 1. "Management Options of Large Anterior Column Defects". 2. Case presentation. 3. "Current Management of Metastatic Disease of the Spine" Comprehensive and Interactive Spine Courses. Denver, Colorado, April 3-4, 2004.
- 60. Faculty of NASS Spring Break: Lecturer, "Innovations in Spine Care." Boca Raton, Florida, April 22-24, 2004.
- 61. Faculty of AANS: Discussant, "Metastatic Spinal Cord Compression: A Randomized Trial of Direct Decompressive Surgical Resection Plus Radiotherapy vs Radiotherapy Alone." Orlando, Florida, May 1-6, 2004.
- 62. Faculty of AANS: Discussant, "Case Studies: Cervical Spine" and "Case Studies: Thoracolumbar Trauma." Charlestown, South Carolina, May 14-16, 2004.
- 63. Invited Faculty of TNS, Lecturer: "Surgical Management of Spinal Neoplasms" and "Surgical Treatment of Sacral Tumors." Annual Scientific Congress of the Turkish Neurosurgical Society. May 22-26, 2004.
- 64. Course Director, AO North America: "Degenerative Spine Symposium A Team Approach", Annapolis, Maryland, July 23-25, 2004.
- 65. Faculty of AO ASIF: Advanced Concepts in the Management of Spinal Disorders, Lecturer: "Anterior Fusion: Techniques, Indications and Devices". Moderator, "Thoracolumbar Spine Trauma" Session. Ponte Vedra Beach, Florida, September 8-12, 2004.
- 66. Faculty of AO ASIF Residents' Forum: Lecturer, "Neoplastic Disease," "Case Reviews", Annapolis, Maryland, October 1, 2004.
- 67. Invited Faculty: Lecturer, "Surgical Management of Spinal Metastases" presented at Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins' Current Concepts in Cancer Pain Management symposium, Baltimore, Maryland, October 14-15, 2004.
- 68. Chairman, North American Spine Society's 19th Annual Meeting. October 27-30, 2004.
- 69. Faculty of NASS Annual Meeting, Moderator: "Concurrent Focused Review 1- Vertebroplasty," Chicago, Illinois, October 27-30, 2004.
- 70. Chairman of AO ASIF, Faculty Development Forum. Southampton, Bermuda, November 4-7, 2004.
- 71. Faculty of AO ASIF: Presenter, "Spine Tumors", AO Spine Masters Course, Davos, Platz, Switzerland, December 14, 2004.
- 72. Faculty of AO ASIF: Lecturer, "Surgery for Primary Tumors, En Bloc Resection, Region Specific Issues and Case Examples", AO Spine Masters Course, Davos Platz, Switzerland, December 15, 2004.

- 73. Faculty of NASS Cervical Fixation: A Hands-On Course: Lecturer, "Principles of Anterior Plating: Avoiding complication, Dynamic vs Static," Chicago, Illinois, January 21-22, 2005.
- 74. Faculty of AO ASIF: Lecturer, "Discogenic Back Pain Anterior Fusion: Techniques, Indications and Devices" Advanced Concepts in the Management of Spinal Disorders. Comprehensive and Interactive Spine Courses, Sun Valley, Idaho, February 1-6, 2005.
- 75. Faculty of AANS: Lecturer, "Treatment of Thoracolumbar Spine Tumors" presented at Innovations in Spinal Fixations: An Advanced Course, Memphis, TN, February 26-27, 2005.
- 76. Faculty of AANS: Lecturer, "Overview and Approaches to Primary Tumors" presented at Spine and Peripheral Nerves in Phoenix, AZ, March 8-9, 2005.
- 77. Faculty of AO ASIF: Lecturer, "Foraminotomy Anterior or Posterior" presented at AO International Course, March 17-20, 2005.
- 78. Faculty, "Fixation/Instrumentation of the Upper Cervical Spine (Techniques and Tips)" presented at the 7th Annual Congress in Spinal Surgery, Antalya, Turkey, April 11-15, 2005.
- 79. Faculty, "Evaluation and Management of Cervical Instability and Kyphosis" presented at the 7th Annual Congress in Spinal Surgery, Antalya, Turkey, April 11-15, 2005.
- 80. Faculty, "Total En Bloc Spondylectomy in the Treatment of Metastatic Spinal Tumors: Indications, Techniques and Avoidance of Complications" presented at the 7th Annual Congress in Spinal Surgery, Antalya, Turkey, April 11-15, 2005.
- 81. Faculty, "Anterior vs. Posterior Surgical Treatment of Cervical Mylepathy Techniques: Pros and Cons" presented at the 7th Annual Congress in Spinal Surgery, Antalya, Turkey, April 11-15, 2005.
- 82. Faculty of AANS: Lecturer, "En Bloc Resection for Spine Tumors" and Moderator: "Evaluation and Management of Primary and Metastatic Vertebral Column Neoplasms" Session at the AANS Annual Meeting Breakfast Seminar, New Orleans, LA, April 17-18, 2005.
- 83. Faculty of AO Spine Latin America/AO Spine North America: Presenter, "En Bloc is Preferred" and "Debridement without Hardware Removal is Safe" at Complex Spinal Issues Symposium, Cancun, Mexico, April 20-24, 2005.
- 84. Co-Chairman of AO North America: AO Challenges and Complications in Complex Spine Surgery Symposium, Baltimore, MD, April 30-May 1, 2005.
- 85. Faculty of CSR Congressi: Lecturer, "Vertebral Column Metastases: Surgical Management" presented at the International Meeting, Updates in Neuro-Oncology, Arezzo, Italy, June 25-26, 2005.
- 86. Faculty of AO North America: Moderator, "Thoracolumbar Spine Trauma", Monterey, California, August 10-14, 2005.
- 87. Faculty of AO North America: Lecturer, "B Lesion with Canal Compromise Session: TL Trauma", Monterey, California, August 10-14, 2005.
- 88. Faculty of AO North America: Lecturer, "Case Presentation: Burst Fracture", Monterey, California, August 10-14, 2005.
- 89. Faculty of AO North America: Lecturer, "Rheumatoid Instability at the Upper Cervical Level", Monterey, California, August 10-14, 2005.
- 90. Faculty of AO North America: Lecturer, "Anterior Fusion: Techniques, Indications and Devices", Monterey, California, August 10-14, 2005.
- 91. Faculty of AO North America: Lecturer, "Case Presentation: Grade I Spondy. With Stenosis", Monterey, California, August 10-14, 2005.
- 92. Faculty of AO North America: Moderator, "Complex Spinal Disorders Session", Monterey, California, August 10-14, 2005.
- 93. Course Director for AO North America: "Spine Tumor Symposium", Baltimore, Maryland, October 28-30, 2005.
- 94. Faculty of AO Spine European Region: Presenter: "Complications in Intradural Tumor Surgery" and "Vertebral Artery Injury Management", Strasbourg, France, November 16-19, 2005.
- 95. Faculty of AO Spine European Region: Presenter: "Case Discussions: Trauma, Tumor, Intraspinal and Cervical Complications and Revision Surgery," Strasbourg, France, November 16-19, 2005.
- 96. Faculty of AO ASIF: ISEC Meeting Principles, Advanced, Masters Spine Interactive I & II Spine Masters Course, Teacher: AO Spine Trauma & Degenerative Interactive Workshop," "Tumour," "Spinal Tumours ARS," Moderator: "TL Fracture," Davos, Switzerland, December 9-16, 2005.
- 97. Faculty of AANS, Lecturer: "Treatment of Thoracolumbar Spine Tumors." Session at the AANS Current Advances in Spinal Fixation, Memphis, Tennessee, February 11, 2006.
- 98. Faculty of AO Spine North America Fellows Forum: Presenter: Management Tips in Session "Rostral Kyphosis Above TL Fusion Constructs," Banff, Alberta, Canada, March 9-13, 2006.
- 99. Faculty of AANS/CNS: Section of Disorders of the Spine and Peripheral Nerves: Moderator: "Oral Abstract Presentations," Lake Buena Vista, Florida, March 15-18, 2006.
- 100. Faculty of 74th Annual Meeting of the AANS, Lecturer: "Vertebral Augmentation: Vertebroplasty and Kyphoplasty, Pathology of Insufficiency," Moderator: "Management of Spinal Column Tumors", Lecturer: "History of Facet Fusion," San

- Francisco, California, April 22-26, 2006.
- 101. Society of Neurological Surgeons Annual Meeting, Durham, North Carolina, May 21-23, 2006.
- 102. Faculty of AO ASIF: Controversies in Spine Trauma Symposium: Course Director/Evaluator, Hilton Head, South Carolina, June 3-4, 2006.
- 103. Faculty of AO Spine European Region Interactive Spine Course: International Chairman, AO Spine Interactive Course, Istanbul, Turkey, June 16-18, 2006.
- 104. Faculty of AOSpine North America Degenerative Spine Symposium: Course Director, Principles and Emerging Technologies, Montreal, Quebec, July 22-23, 2006.
- 105. Faculty of AOSpine North America Spine Faculty Development Forum, Moderator: "AOSpine North America Welcome," "Introduction of New Methods," Lecturer: "Future Directions of NASEC and Tools Within Our Informatics Matrix," Southampton, Bermuda, August 9-13, 2006.
- 106. Faculty of Fifth Annual International Neuro-Oncology Update, Lecturer: "Surgical Management of Spinal Tumors," Memphis, Tennessee, August 24-25, 2006.
- 107. Faculty of Spine Oncology Study Group, Lecturer: "Key Controversies in the Management of Primary Spine Tumors, Surgical Intervention," Chicago, Illinois, October 6, 2006.
- 108. Faculty of Congress of Neurological Surgeons 2006 Annual Meeting: Discussant: "Surgical Management of Primary and Metastatic Sarcoma of the Mobile Spine," Lecturer: "Management of Primary Spinal Tumors," "Surgery Versus Radiosurgery for Spinal Metastases," "Patient Evaluation and Selection," Moderator: "Metastatic Spinal Disease: The Role of Surgery and Radiation Therapy," Lecturer: "Patient Evaluation and Literature Update," Faculty of Digital Masters Video Symposium, "Spinal Cord Ependymoma," October 7-12, 2006.
- 109. Cervical Spine Research Society 34th Annual Meeting & SCRS 11th Instructional Course, "Controversies in Surgical Management Debates: Laminectomy is Better than Laminaplasty," "Assessment in Surgical Treatment of Craniocervical Pathology," Palm Beach, Florida, November 29-December 2, 2006.
- 110. Chairman of AO Spine Cervical Spine Course, Davos, Switzerland, December 8-16, 2006.
- 111.Guest Faculty: First International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Radiosurgery: "Surgical Treatments for Sacral Tumors," Orlando, Florida, February 25, 2007.
- 112. Faculty of Spine Oncology Study Group, Memphis, Tennessee, February 26, 2007.
- 113. Faculty of AANS/CNS: Speaker, "Primary Bone Tumors of the Spine: Top Ten Pearls of Treatment" and "Tumor Recurrence: Spondylectomy/Local Excision" 23rd Annual Meeting of the AANS/CNS Section on Disorders of the Spine & Peripheral Nerves, Phoenix, Arizona, March 7-10, 2007.
- 114. Faculty of Fifth Annual AO Spine North America Fellows Forum: Moderator: "Case Discussion: Current Concepts in the Management of Spine Metastasis," Banff, Alberta, Canada, March 29 April 1, 2007.
- 115. Faculty of Spine Oncology Study Group, Washington, D.C., April 12-14, 2007.
- 116. Faculty of 75th Annual Meeting of the AANS/CNS, Washington, D.C., April 14-19, 2007.
- 117. Faculty of AO ASIF: Challenges & Complications in Complex Spine Surgery Symposium, A Team Approach, Lecture: "Complications of Tumor Surgery Including Spinal Cord Tumor," "Management of Complications & Closing Remarks," San Francisco, California, April 28-29, 2007.
- 118.1st International Chordoma Research Workshop, Co-Moderator: "Future Clinical Management Break-Out Group Discussions," Bethesda, Maryland, May 3-4, 2007.
- 119. Member of Society of Neurological Surgeons Meeting, Annual Meeting, San Francisco, California, May 6-8, 2007.
- 120.Invited Faculty: Advanced Anterior & Posterior Spinal Strategies: Sharpening Your Surgical Skills, Henderson, Nevada, May 18-19, 2007.
- 121. Faculty of AO Foundation Board of Trustees Meeting, Beijing, China, June 6-9, 2007.
- 122. Faculty of Second International Meeting Updates in Neuro-Oncology, Lecture: "Metastatic Spinal Tumors: Evaluation and Decision- Making", Corona, Italy, June 28th July 1, 2007.
- 123. Course Director, AOSNA Advanced Concepts in the Management of Spinal Disorders, Lecture: "Tumor," Niagara on the Lake, Ontario, Canada, August 2-4, 2007.
- 124.Guest Lecturer, 13th Congress of the European Association of Neurological Societies, Lecture: "Primary Tumors of the Vertebral Spine", Glasgow, England, September 2-7, 2007.
- 125. Course Director, AO Spine North America Spine Tumor Symposium, Vancouver, British Columbia, Canada, September 27-29, 2007.
- 126. Faculty of CSRS Hands-On Cadaver Course, "Anterior Cervical Approach to C2-4 & C7-T3", St. Louis, Missouri, January 17-19, 2008.
- 127. Faculty of AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, "Treatment of Primary and Metastatic Spine Tumors," and "Advances in the Treatment of Thoracic and Lumbar Spine Trauma Lumbosacral Pelvic Fixation," Orlando,

- Florida, February 27-March 1, 2008.
- 128. Faculty of Interurban Neurosurgical Society Annual Scientific Meeting, "Surgical Management of Spinal Neoplasms," Chicago, Illinois, March 6-7, 2008.
- 129. Speaker for 6th Annual AOSpine North America Fellows Forum, Banff Springs, Alberta, Canada, April 3-6, 2008.
- 130. Faculty and Presenter of AO Spine North America Excellence in Spine Controversies in Spine Trauma Symposium, "Post-Traumatic Deformity" and "Spine Injuries in Sports", Baltimore, Maryland, April 12-13, 2008.
- 131. Presenter for AANS Annual Meeting, "Vertebral Column Tumors" Chicago, Illinois, April 26-May 1, 2008.
- 132. Faculty and Presenter of AO Spine North America Strategy Summit, "Surgical Management of Metastatic Spine Tumors" Coronado, California, June 26-29, 2008.
- 133. Faculty for Cleveland Clinic, "Managing Spine Tumors" Cleveland, OH, July 22, 2008.
- 134. Faculty for AOSpine North America "Advanced Concepts in the Management of Spinal Disorders," Monterey, CA, August 6-10, 2008.
- 135. Faculty for AO Spine North America "Cervical Stenosis With Myelopathy" and "Complex Spine Pathologies II, Baltimore, MD, September 5-7, 2008.
- 136. Faculty for AO Spine North America "Lecture-Cervicothoracic Injuries" and "Tumors", Sun Valley, Idaho, February 4-8, 2009.
- 137. Facutly for AANS/CNS "Treatment of Primary and Metastatic Spine Tumors", Phoenix, Arizona March 11-14, 2009.
- 138. Faculty for AO Spine North America "Spine Tumor Symposium", Houston, Texas, March 27-29, 2009.
- 139. Chairperson AO Spine Europe "Masterclass in Degenerative and Tumor Spine, Turkey, June 11-13, 2009.
- 140. Faculty for AO Spine North America, "Symposium 4: Tumors, Introduction and Decision Making and Primary Spinal Tumors, San Francisco, CA, June 23-26, 2009.
- 141.Invited Speaker for Neuro Oncology Conference Speaker 2009, "Intramedullary Tumors", Columbus, Ohio, September 8-9, 2009.
- 142. Moderator for Scoliosis Research Society 44th Annual Meeting, "Management of Intraoperative Problems in Deformity Cases", September 23, 2009.
- 143. Faculty for 5th Annual Temple Spine Symposium Spinal Oncology and Spinal Degeneration, "Spinal Neoplasms", Philadelphia, PA, October 2, 2009.
- 144. Faculty for NASS Annual Meeting, "Management of Intraoperative Problems in Deformity Cases", San Francisco, CA, November 9-11, 2009.
- 145.Invited Speaker for CSRS 14th Instructional Course, "Occipital Cervical & C1-C2 Intraoperative Reduction Technique" and "Complications in Treatment of Cervical Spine Metastases", Salt Lake City, UT, December 2, 2009.
- 146. Faculty for 26th Annual Meeting of the AANS/CNS Section on "Disorders of the Spine and Peripheral Nerves", Orlando, Florida, February 17-20, 2010.
- 147. Faculty for AOSNA Advanced Concepts in the Management of Spinal Disorders, Salt Lake City, Utah, February 24-28, 2010
- 148. Faculty for AOSNA Spine Fellows Forum, Banff, Canada, April 7-11, 2010.
- 149.Invited Speaker for 2010 AANS Annual Meeting on "Complications and Complex Spinal Surgery: Lessons Learned, Philadelphia, PA, April 30 May 5, 2010.
- 150. Presenter for Korean American Spine Society Meeting, July 16, 2010.
- 151. Faculty for 2010 CNS Annual Meeting, San Francisco, CA, October 16-21, 2010.
- 152. Faculty for CSRS 15th Instructional Course, Charlotte, NC, December 1-3, 2010.
- 153. Invited Speaker for 5th Annual David W. Cahill Spine Symposium, Tampa, FL, January 7-8, 2011.
- 154. Faculty for 4th Annual CSRS, St. Louis, MO, January 27-29, 2011.
- 155. Faculty for Instructional Course Lecture, San Diego, CA, February 16-17, 2011.
- 156. Chairperson for 27th Annual Meeting AANS/CNS Spine Section Meeting, Phoenix, AZ, March 9-12, 2011.
- 157. Chairperson for AO Spine Global Spine Congress, Barcelona, Spain, March 22-24, 2011.
- 158. Faculty for AANS 2011 Annual Meeting, Denver, CO, April 9-13, 2011.
- 159. Faculty for AANS Spinal Deformity Course for Senior Residents, Baltimore, MD, May 6-8, 2011.
- 160. Chairperson, Executive Meeting for Study Groups, Chicago, IL, May 14, 2011.
- 161. Chairperson for AOSpine Tumor Symposium, Boston, MA, May 20-22, 2011.
- 162. Invited Speaker for UCSF Spine Symposium, San Francisco, CA, June 2-5, 2011.
- 163. Invited Speaker, International Meeting Tumors & Osteoporosis, Bologna, Italy, June 9-12, 2011.
- 164. Faculty for AO Spine Trustees Meeting, Berlin, Germany, July 20 23, 2011.
- 165.Keynote Speaker for Second Annual Spine Symposium: Spinal Tumors, New Haven, CT, September 21, 2011.

- 166. Co-Chairman for AO KF Tumor Meeting, Toronto, Ontario, October 20-22, 2011.
- 167. Invited Speaker for Society of Neuro-Oncology Annual Meeting, Anaheim, CA, November 16-17, 2011.
- 168. Presenter for the First Annual Skull Base and Neuro-Oncology Surgery Symposium, Philadelphia, PA, December 1, 2011.
- 169. Presenter for the 19th Annual Tumors of the Nervous System Course, Boston, MA, December 5, 2011.
- 170. Presenter for CSRS 16th Instructional Course, Scottsdale, AZ, December 6-7, 2011.
- 171. Presenter for AAOS 2012 Annual Meeting, San Francisco, CA, February 9, 2012.
- 172. Presenter for 28th Annual Meeting of the AANS/CNS Section on Disorders of The Spine and Peripheral Nerves, Orlando, FL, March 7-10, 2012.
- 173. Faculty for 10th Annual AOSNA Fellows Forum, Banff Springs, Alberta, Canada, March 15-17, 2012.
- 174. Presenter for AANS Spinal Deformity Course for Senior Residents, Baltimore, MD, March 30, April 1, 2012.
- 175. Presenter for 2012 AANS Annual Scientific Meeting Breakfast Seminar, Miami, FL, April 14-17, 2012.
- 176. Faculty for Principles and Treatment of Spinal Disorders for Residents Course, Las Vegas, NV, April 27-28, 2012.
- 177. Faculty for AO Foundation Fractures and Tumor Expert Group, West Chester, PA, May 4, 2012.
- 178.Presenter for SRS/IMAST 19th International Meeting, Istanbul, Turkey, July 18-21, 2012.
- 179. Faculty for Third Annual One Spine Resident's & Fellow's Course, Seattle, Washington, August 17-19, 2012.
- 180. Faculty for AO Spine TKF Meeting, Budapest, September 6-8, 2012.
- 181. Presenter for 11th Annual Neuro Oncology Updates, Baltimore, MD, September 20, 2012.
- 182. Faculty for AO Spine Davos Course, Davos, Switzerland, December 9-14, 2012.
- 183. Faculty for AO Spine Spinal Disorders Course, Park City, UT, February 1-3, 2013.
- 184. Presenter for ACSR 2013 Winter Meeting, San Diego, CA, February 14-17, 2013.
- 185. Presenter for CNS 2013 DSPN Annual Meeting, Phoenix, AZ, March 6-9, 2013.
- 186. Presenter for ICL 2013 AAOS Annual Meeting, Chicago, IL, March 20-21, 2013.
- 187. Presenter for 2013 Turkish Spine International Congress Meeting, Cappadoccia, Turkey, April 15-20, 2013.
- 188. Presenter for IMAST, 20th Internaitonal Meeting on Advanced Spine Techniques Meeting, "Decision Making for Sacrectomy vs. Partial Sacrectomy", Vancouver, Canada. July 10-13, 2013.
- 189. Presenter for IMAST, 20th Internaitonal Meeting on Advanced Spine Techniques Meeting, "Role of En Bloc Resection in Metastatic Disease", Vancouver, Canada. July 10-13, 2013.
- 190. Presenter for AOSNA Spinal Oncology Knowledge Forum, Chicago, IL, July 26-27, 2013.
- 191.Presenter for One Spine Fellows 2013, Seattle, WA, "Spinal Tumors" and "Hands on Cadaver Lab and Exhibits, August 15-18, 2013.
- 192.Presenter for AO A Comprehensive Hands on Human, Lumbar Session II and Spinal Oncology, Las Vegas, NV, September 12-14, 2013.
- 193.Presenter for the American Academy of Neurological Surgery, "Evolution of Surgical Treatment of Spinal Chordomas", Newport Coast, CA, September 25-28, 2013.
- 194. Presenter for CNS 2013 Annual Meeting, Managing Metastasis to the Spine", San Francisco, CA, October 19-23, 2013.
- 195. Course Co-Chairmen, AO Spine Complex Spine Surgery: Innovations in Practice, Tampa, Florida, November 8-9, 2013.
- 196.Presenter for EANS Annular Meeting, Tel Aviv, November 9-14, 2013. (Medical & Surgical Spine Oncology, Chairmen Spine Session and En Bloc Resection of Primary Spinal Tumors: Regions Specific Challenges).
- 197. Chairmen AO Spine Davos Course, Davos, Switzerland, December 7-13, 2013.
- 198. Presenter for ACSR 2014 CME Meeting, San Diego, CA, January 30 February 1, 2014.
- 199. Presenter for 65th Annual Meeting of the Southern Neurosurgical Society, San Juan, Puerto Rico, February 20-22, 2014.
- 200. Presenter for DSPN Annual Meeting, Orlando, FL, March 5-8, 2014.
- 201. Faculty for 12th Annual AOSNA Fellows Forum, Banff Springs, Alberta, Canada, March 28-30, 2014.
- 202.Moderator for 2014 AANS Annual Scientific Meeting, (Complications of Complex Spinal Surgery: Lessons Learned) San Francisco, CA, April 5-8, 2014.
- 203.Presenter for the 2nd Annual State of the Art Neuro Oncology Conference (En Bloc Resection for Spine Tumors), Clearwater Beach, FL. April 11, 2014.
- 204.Presenter for World Spinal Column Society, (Surgical Treatment of Sacral Fractures and En bloc Resection of Metastatic Tumor, Is there a role?) Montego Bay, Jamaica, May 4-6, 2014.
- 205. Presenter for ACSR Summer Business Meeting, Chicago, IL, June 20-21, 2014.
- 206.Presenter for 13th Annual International Neuro-Oncology Updates, Boston, MA, September 2-4, 2014. (Surgical Treatment Of Primary Bone Tumors of The Spine)
- 207. Faculty for Brazilian Congress on Neurosurgery, Curitiba, Brazil, September 13-16, 2014. (Enbloc Vertebrectomy Through Posterior Approach Only, Chordoma-Em-bloc Sacral Removal, Ewing's Sarcoma, Evolution of Surgical Treatment of

- Vertebral Metastasis)
- 208. Presenter for AANS Meeting, Santa Rosa Beach, Florida, September 17-20, 2014.
- 209. Presenter for Meridian Health Neuroscience Symposium, Red Bank, NJ, October 10, 2014.
- 210. Presenter for 2014 CNS Annual Meeting, Boston, MA, October 18-21, 2014, 3D Neurosurgery Session Techniques To Advance Safety and Eficacy In Micro Neurosurgery & Management of Metastatic Tumors of The Spine.
- 211. Presenter for the 41st Annual Hanbery Neurosurgical Society Meeting, "Management of Spinal and Sacral Chordomas." Brewster, MA, July 30 August 2, 2015.
- 212. Invited Faculty for the UCSF Neurosurgery Update, Napa, CA, August 6-8, 2015. (Region Specific Challenges in Surgical Treatment of Painful Primary Spinal Neoplasms)
- 213.Invited Faculty for the UCSF Neurosurgery Update, Napa, CA, August 6-8, 2015. (Recent Advances in Surgical Treatment of Painful Metastatic Spinal Tumors)
- 214. Faculty of CNS Annual Meeting, "Controversies in Spinal Surgery: Case Based Interactive Discussions," New Orleans, LA, September 28, 2015.
- 215. Invited Speaker, AO Spine KF Tumor Associate Member Meeting, "Management of Local Recurrence for Primary Tumors of the Spine," New Orleans, LA, September 25, 2015.
- 216.R.Eustace Semmes Lecturer at the 67th Southern Neurosurgical Society Annual Meeting, San Antonio, TX, March 2-5, 2016.
- 217.Presenter for the 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves, "Traditional Open Surgical Techniques." Orlando, FL, March 16-19, 2016.
- 218.Presenter for the 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves. Debate: Surgical Options for Spinal Metastasis: "Vertebrectomy is the Best Option: Go Big or Go Home!" Orlando, FL, March 16-19, 2016.
- 219. Faculty for the Global Spine Congress 2016, Dubai, UAE. "Case Presentation for Audience and Expert Panel: 4 Primary Tumor Cases," "Surgical Management of Spinal Osteoblastomas," "A systematic review and expert opinion of preferred reconstructive techniques after enbloc spinal column tumor resection." April 12-17, 2016.
- 220.Faculty for 84th AANS Annual Scientific Meeting, "Update on Tumors for the General Neurosurgeon." Chicago, IL, April 30 May 1, 2016.
- 221. Presenter for the Memorial Sloan Kettering Multidisciplinary Spine Oncoloy Symposium, "Management of Locally Recurrent Chordomas," New York, NY, June 1-4, 2016.
- 222. Presenter for The American Academy of Neurological Surgery, 78th Annual Meeting, "Point-Counterpoint Debate III (Surgery/Radiosurgery for spinal mets), Jackson Hole, WY, September 14 -17, 2016.
- 223. Faculty of AO Spine Symposium "Knowledge Forum Tumor an update" "The role of the implant construct and fusion after en bloc surgical resection of primary spinal tumors and total sacrectomy" Switzerland, November 2-6, 2016.
- 224. Faculty of CSRS 21st Instructional Course, "Common Tumors of the Cervical Spine and Surgical Treatment Strategies." Toronto, Ontario, Canada, November 30, 2016.
- 225. Keynote Speaker for 42nd Annual Louisiana Neurosurgical Society Meeting, New Orleans, LA, January 12-14, 2017.
- 226.Invited Speaker for the Spinal Tumor, General Spine Breakout, Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves Spine Summit, "Ahead of the Curve: Transformative Innovations in Spine Surgery." Las Vegas, NV March 8-11, 2017.
- 227. Presenter for the Memorial Sloan Kettering Multidisciplinary Spine Oncoloy Symposium, "Value of Spinal Oncology," New York, NY, April 7-8, 2017.
- 228. Faculty for Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine Summit 2018. Moderator, "Sports-related Spine Trauma," Hollywood, FL, March 12-16, 2018.
- 229. Faculty for Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine Summit 2018. Course Director, Mentoring from A to Z: Learning from the Masters," Hollywood, FL, March 12-16, 2018.
- 230.Presenter for Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine Summit 2018. Spinal Tumoral Pathology Made Easy (DX-Management) with AO Spine "En Bloc Resection and Instrumented Fusion (Multiple Resection and Stabilization Techniques)" Hollywood, FL, March 12-16, 2018.
- 231.Presenter for Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine Summit, 2018. En-Bloc Resection and Instrumented Fusion (Multiple Resection and Stabilization Techniques). FL, March 12-16, 2018.
- 232. Faculty, Annual Meeting of AANS, "Spinal Reconstruction Strategies After Oncologic Surgery for Metastatic Cancer" and "The Relevance of Metastatic Spinal Tumors to a Neurosurgeon: Disease Prevalence and Survial in the New Era of Oncological Treatments", New Orleans, LA, April 28 May 2, 2018.
- 233. Faculty, Annual Meeting of AANS, Panelist: "Multidisciplinary Approaches to Different Tumors.", New Orleans, LA, April 28 May 2, 2018.
- 234. Faculty, Annual Meeting, CNS, Section of Tumors Symposium, "Spine Oncology", Houston, TX, October 6-9, 2018.
- 235. Faculty, Annual Meeting, CNS, "spinal tumor Surgery, Case Based Management' and Metastatic Thoracis Spinal Tumor

- Case with a Complication, Avoidance and Management." Houston, TX, October 6-9, 2018.
- 236. Presenter for 2019 AANS Annual Scientific Meeting Breakfast Seminar, Spinal Cord Tumors: "Approaches and Spinal Reconstruction Paradigms of Different Extramedullary Spinal Cord Tumors in Adults", San Diego, CA, April 11-16, 2019.
- 237. Presenter for 2019 AANS Annual Scientific Meeting Update on Tumors: "Spinal Reconstruction Strategies after Oncologic Surgery for Metastatic Cancer, San Diego, CA, April 11-16, 2019.
- 238. Faculty, Moderator, Global Spine Congress, 2019, Symposium: 7 Rules to Treat Metastatic Spine Disease: An antidote to failure. Global Spine Congress Meeting, Toronto, Ontario, Canada, May 15-18, 2019.
- 239. Faculty, Moderator, Global Spine Congress, 2019, Oral Presentations Tumor 3. Global Spine Congress Meeting, Toronto, Ontario, Canada, May 15-18, 2019.
- 240. Faculty, Moderator, Global Spine Congress, 2019, Primary Spine Tumor Round Table, Global Spine Congress Meeting, Toronto, Ontario, Canada, May 15-18, 2019.
- 241.Presenter, Global Spine Congress, 2019. Advances in Spine Tumor Treatment "Multidisciplinary Approach to the Difficult Tumors of the Spine" Global Spine Congress Meeting, Toronto, Ontario, Canada, May 15-18, 2019.
- 242.Invited Faculty: 31st Annual Pan Philadelphia Neurosurgery Conference: The Future of Neurosurgery is Now. Keynote Lecture "Evolution of Surgical Treatment of Spinal Neoplasms," Phladelphia, PA, December 6, 2019.

Invited Reviews, Editorials

- 1. Invited Topic Editor: Metastatic Disease of the Spine, Neurosurgical Focus, December 2001.
- 2. Member of the Selection Committee for the 2002 Outstanding Paper Awards for *The Spine Journal* North American Spine Society (NASS), March 2002.
- 3. Member of Committee grading abstracts for the NASS 17th Annual Meeting, March 2002.
- 4. Member of Cervical Spine Research Society Editorial Committee, The Cervical Spine 5th Edition, 2012.

Chairing National or International Conferences/Symposia

- 1. AO ASIF, Comprehensive & Intactive Spine Courses, Tucson, Arizona, Co-Chairman, 5/2001-6/2001.
- 2. AO ASIF, International Symposium on Spinal Tumors, Houston, Texas, Co-Chairman, 3/2002.
- 3. AO ASEC (North American Spine Education Committee), Chairman, 2003.
- 4. Cervical Spine Research Society, Neoplastic Disease of the Cervical Spine, Scottsdale, Arizona, Moderator and Lecturer, 2003.
- 5. North American Spine Society (NASS) Scientific Program Committee, Chicago, IL, Chairman 2004.
- 6. AO Spine North America, Faculty Development Forum, Southampton, Bermuda, Chairman, November 4-7, 2004.
- 7. AO North America, AO Challenges and Complications in Complex Spine Surgery Symposium, Baltimore, MD, Co-Chairman, April 30-May 1, 2005.

Seminar Invitations from Other Institutions

- 1. Invited Guest Lecturer: Surgical Treatment of Primary Spinal Cord Tumors. Presented at the International Neuro-Oncology Symposium sponsored by the Albert Einstein Hospital, Sao Paulo, Brazil, December 10, 1999.
- 2. Invited Guest Lecturer: Management of Spinal Metastasis. Presented at the International Neuro-Oncology Symposium hosted by the Albert Einstein Hospital, Sao Paulo, Brazil, December 11, 1999.
- 3. Invited Faculty: "Thoracic and Lumbar Tumor Resection and Reconstruction" presented at the Neuro-Oncology 2001: Current Concepts Symposium sponsored by The Cleveland Clinic Foundation's Brain Tumor and Neuro-Oncology Center, February 17-20, 2001.
- 4. Invited Faculty: "Tumor Characterization and Biology" presented at the Neuro-Oncology 2001: Current Concepts Symposium sponsored by The Cleveland Clinic Foundation's Brain Tumor and Neuro-Oncology Center, February 17-20, 2001
- 5. Invited Faculty: "Surgical Management of Spinal Metastatic Disease" presented at the Brain Tumors Symposium at the University of Utah's Huntsman Cancer Institute, January 27-29, 2005.
- 6. Invited Guest, Anadolu Medical Center, Istanbul, Turkey, January 24-28, 2007.
- 7. Invited Speaker: "Recent Advances in Spinal Surgery" and "Cranial Cervical Junction Abnormalities," Anadolu Medical Center, Istanbul, Turkey, May 23-27, 2007.
- 8. Invited Guest Lecturer: Israel Neurosurgical Society, "The Treatment of Primary Spinal Tumors" and "Surgical Treatment of Metastatic Tumor of the Spine, March 16-20, 2010.
- 9. Invited Guest Speaker: "Surgical Treatment of Primary Spinal Tumors, Quebec City, June 6-10, 2010.
- 10. Invited Guest Speaker: NYU/HJD Spine Fellows/Residents Alumni Symposium, September 11, 2010.
- 11. Invited Guest Speaker: South Korean Neurosurgical Society Meeting, October 27-29, 2011.

- 12. Invited Guest Examiner: Fall Oral Examinations of the American Board of Neurological Surgery, November 8-11, 2011.
- 13. Invited Speaker: ISASS Miami Course, January 28-29, 2012.
- 14. Invited Faculty: 7th Mayo Clinic Spine Symposium, March 26-28, 2012.
- 15. Invited Guest Speaker: Hokkaido University Spinal Reconstruction Seminar, Sapporo, Japan, June 27-28, 2012.
- 16. Invited Guest Speaker: A Woman's Journey, Palm Beach, FL, January 24-25, 2013.
- 17. Honored Guest Speaker: Surgical Management of Spinal Neoplasms, University of Maryland Department of Neurosurgery, May 8, 2013.
- 18. Invited Faculty: Lateral Open Access to T-L Spine (Thoracotomy, Thoracoabdominal Approach), 5th Annual Johns Hopkins Spine Workshop, August 28-29, 2015.
- 19. Invited Guest Speaker: Current Surgical Management of Spinal Neoplasms, Bernard Stone Memorial Lecture, University of Massachusetts Medical School Department of Neurosurgery, September 23, 2015.
- 20. Invited Faculty: Lateral Open Approaches to T-L Spine (Lateral Open Access to T-L Spine (Thoracotomy, Thoracoabdominal Approach), 6th Annual Johns Hopkins Spine Workshop, August 26-27, 2016.
- 21. Invited Faculty: 18th Annual Brain Tumor Update and 7th Annual International Symposium on Long-Term Control of Metastases to the Brain and Spine, Las Vegas, NV, October 22 -23, 2016.
- 22. Invited Faculty: "New York Neurosurgery III The Cutting Edge Innovations in Neurosurgery," Northwell Health, New York, NY, October 28, 2016.
- 23. "Recent Advances in Surgical Mnagement of Spinal Neoplasms," Invited Lecturer, 46th Annual Meeting of the Japanese Society for Spine Surgery and Related Research, Sapporo, Japan, April 12 15, 2017.
- 24. Invited Faculty: World Spine 8 Lisbon, Portugal,. Pre-Meeting Cadaver Course, April 14 15, 2019.
- 25. Invited Faculty: World Spine 8 Lisbon, Portugal, Moderator, Plenary Session, April 16, 2018.
- 26. Invited Faculty: World Spine 8. Lisbon, Portugal, "En Bloc Resection for Primary Spinal Column Tumors," and "Surgical Treatment of Sacral Tmors," April 16, 2018.
- 27. Invited Faculty: New York Neurosurgical Society Annual Meeting, New York, NY. "Recent Advances in Surgical Treatment of Spinal Tumors." May 18, 2018.
- 28. Invited Speaker: CSRS Annual Meeting, "Dural Involvement in Tumor Surgery", Scottsdale, AZ, December 6-8, 2018.
- 29. Honored Guest Speaker: 2019 TANS Annual Meeting, San Antonio, TX. "Recent Advances in Surgical Treatment of Metastatic Spinal Tumor." February 7 10, 2019.
- 30. Invited Faculty: DSPN, Spine Summit, "En Bloc Resection and Instrumented Fusion," Miami, FL, March 15-17, 2019.
- 31. Invited Faculty: DSPN, Spine Summit, Cahill Controversies: "Aggressive Spinal Reconstruction is Best," Miami, FL, March 15-17, 2019.
- 32. Invited Faculty: Benzel Symposium, AANS, "Current Surgical Management of Spinal Neoplasms", San Diego, CA, April 11-12, 2019.

Lectureships and Visiting Professorships

- 1. Visiting Professor: "Spine surgery for metastatic disease", Hillcrest Fentress Cancer Center, Waco, TX, June, 1996.
- 2. Visiting Professor: "Management of metastatic spinal tumors". The University of Texas Southwestern Medical Center at Dallas, TX, February, 1997.
- 3. Visiting Professor: "Complex cervical pathology and treatment strategies". The University of Cincinnati, Mayfield Clinic, Cincinnati, OH, August, 1999.
- 4. Visiting Professor: "Focus on Spinal Column Tumors". 5h Annual Complex Spine Day, The University of Manitoba, Winnipeg, Canada, October 28, 2000.
- 5. Visiting Professor: "Management of Metastatic Spine Tumors". 5th Annual Complex Spine Day, The University of Manitoba, Winnipeg, Canada, October 29, 2000.
- 6. Visiting Professor: "Surgical Management of Spinal Neoplasms". Spine Conference, Johns Hopkins Hospital, Baltimore, Maryland, June 5, 2001.
- 7. Visiting Professor: "Contemporary Surgical Management of Spinal Neoplasms" Brown University Program in Neurosurgery Grand Rounds, Providence, Rhode Island, October 22, 2001.
- 8. Visiting Professor: "Surgical Management of Sacral Tumors" Rhode Island Neurosurgical Society Meeting, Providence, Rhode Island, October 22, 2001.
- 9. Visiting Professor: "Radical Surgical Resection for the Treatment of Spinal Neoplasms" New York University School of Medicine Grand Rounds, New York, New York, January 24, 2003.
- 10. Visiting Professor: "Surgical Management of Spinal Neoplasms" New York Medical College Department of Neurosurgery Grand Rounds, Valhalla, New York, May 9, 2003.
- 11. Visiting Professor: "Spinal Metastasis" and "En Bloc Resection for Primary Spinal Neoplasms." NIH/George Washington

- Lecture, Department of Neurosurgery Resident Lectures, Bethesda, MD, February 22, 2005.
- 12. Visiting Professor: "Surgical Management of Spinal Neoplasms" University of Pennsylvania, Department of Neurosurgery Grand Rounds, February 24, 2005.
- 13. Visiting Professor: "Surgical Management of Spinal Neoplasms" University of Miami, Department of Neurosurgery Grand Rounds, Miami, Florida, June 2, 2005.
- 14. Visiting Professor: "Sacral Tumors" University of Miami, Department of Neurosurgery Lecture, Miami, Florida, June 3, 2005
- 15. Lecturer: "Surgical Management of Spinal Tumors" Johns Hopkins University, Department of Orthopaedic Grand Rounds, June 9, 2005.
- 16. Visiting Professor: Surgical Management of Spinal Neoplasms" Thomas Jefferson University Hospital, Department of Neurosurgery Grand Rounds, February 3, 2006.
- 17. Visiting Professor: "Sacral Tumors" Brigham and Women's Hospital and Children's Hospital, Department of Neurosurgery, February 9, 2006.
- 18. Visiting Professor: "Surgical Management of Spinal Neoplasms" Yale University School of Medicine, New Haven, Connecticut, September 22, 2006.
- 19. Visiting Professor: "Sacral Tumors" Brigham and Women's Hospital and Children's Hospital, Department of Neurosurgery, Boston, Massachusetts, February 9, 2007.
- 20. Visiting Professor: "Surgical Management of Spinal Tumors" University of Utah School of Medicine, Salt Lake City, Utah, February 21, 2007.
- 21. Visiting Professor: "Surgical Management of Spinal Neoplasms" Stanford University Medical Center, Department of Neurosurgery Grand Rounds, Stanford, California, March 23, 2007.
- 22. Guest Lecturer, 13th Congress of the European Association of Neurological Societies, Lecture: "Primary Tumors of the Vertebral Spine", Glasgow, England, September 2-7, 2007.
- 23. Visiting Professor: "Surgical Management of Primary Spinal Neoplasms" & "Surgical Treatment of Sacral Tumors", Washington University, St. Louis, Missouri, November 6-8, 2007.
- 24. Visiting Professor: "Surgical Management of Primary Spinal Neoplasms" Neurological Institute of New Jersey, Newark, New Jersey, November 13-14, 2007.
- 25. Visiting Professor: "Surgical Management of Primary Spinal Neoplasms" Baylor College of Medicine, Houston, Texas, February 7-9, 2008.
- 26. Visiting Professor "Surgical Management of Spinal Neoplasms" University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, May 6-7, 2008.
- 27. Visiting Professor: "Surgical Management of Spinal Neoplasms" Henry Ford Hospital, Detroit, MI, May 20-21, 2008.
- 28. Visiting Professor: "Surgical Management of Spinal Neoplasms" University of California San Francisco, California, March 25-26, 2009.
- 29. Visiting Professor: "Current Surgical Management of Spinal Neoplasms" University of Washington, Seattle, Washington, July 15, 2009.
- 30. Visiting Professor: "Surgical Management of Spinal Neoplasms" University of Florida, April 22, 2010.
- 31. Visiting Professor: "Primary and Metastatic Tumors of the Spine", The Burdenko Neurosurgical Institute, Moscow, Russia, May 18-23, 2010.
- 32. Visiting Professor: MGH Grand Rounds, Boston, MA, May 26-27, 2010.
- 33. Visiting Professor: Cedars-Sinai Medical Center, Los Angeles, CA, November 9-10, 2010.
- 34. Visiting Professor: Cleveland Ohio Clinic, Cleveland, Ohio, January 19-21, 2011.
- 35. Visiting Professor: Montefiore Medical Center, Bronx, NY, February 6-7, 2011.
- 36. Visiting Professor: Rush University, Chicago, IL, June 22-24, 2011.
- 37. Visiting Professor: The University of Texas-SW Medical Center, Dallas, Texas, August 16-18, 2011.
- 38. Visiting Professor: Northwestern University, Chicago, IL, February 17, 2012.
- 39. Visiting Professor: West Virgina University, Healthcare, Morgantown, WV, September 19, 2012.
- 40. Visiting Professor: Mayo Clinic, Rochester, MN, November 11-12, 2012.
- 41. Guest Lecture Speaker: Tumor Course: Multimodal Treatment of Spinal Tumors, Seattle, WA, March 27-30, 2013. (Title: Current Surgical Management of Spinal Neoplasms)
- 42. Visiting Professor: Vanderbilt University Medical Center, Department of Neurosurgery, Grand Rounds, Nashville, TN, May 17, 2013.
- 43. Visiting Professor: University of Michigan, Ann Arbor, MI, August 29, 2013.
- 44. Visiting Professor: Columbia University Medical Center, New York, New York, October 9-10, 2013.
- 45. Visiting Professor: Duke University Medical Center, Durham, NC, July 8-9, 2014.

- 46. Visting Professor: Meridian Health Neuroscience Symposium, Red Bank, NJ, October 10, 2014.
- 47. Visting Professor: Charite Professor Event, Berlin, Germany, November 6-8, 2014.
- 48. Visiting Professor: Ohio State University, Columbus, Ohio, February 5, 2015.
- 49. Visiting Professor: Stanford University Medical Center, Stanford, California, November 5-6, 2015.
- 50. Visiting Professor: Brigham & Women's Hospital, Boston, Massachusetts, September 8, 2016.
- 51. Visiting Professor: Yale School of Medicine, New Haven, Connecticut, June 2, 2017.
- 52. Visiting Professor: University of Vermont Spine Combined, Symposium, Orthopaedic Surgery Grand Rounds "En bloc resection for primary spinal tumors; Region Specific Challenges and Outcome" and Neurosurgery Grand Rounds, Recent Advances in Surgical Treatment of Spinal Metastases", Burlington, VT, May 16 17, 2018.
- 53. Visiting Professor, Tufts Medical School, Department of Neurosurgery, "Advances in Surgical Treatment of Spinal Neoplasms" Tufts Medical Center, Boston, Massachusetts, November 8, 2018.
- 54. Visiting Professor, UCLA Health, Department of Neurosurgery, "Recent Advances in Surgical Management of Spinal Neoplasms", UCLA Health, Los Angeles, California, March 5-6, 2019.
- 55. Visiting Professor, Geisinger Commonwealth School of Medicine, Department of Neurosurgery, "Recent Advances in Surgical Management of Spinal Neoplasms", Geisinger Commonwealth School of Medicine, Danville, PA, April 4-5, 2019.
- 56. Visiting Professor, Mayo Clinic, 9th Annual Neurosurgery Research Symposium, "Predicting survial an dlocal recurrence in spinal and sacral chordomas" Mayo Clinic, Department of Neurologic Surgery, Rochester, MN, September 6-7, 2019.

Named Lectureships:

- 1. Rhoton Family Lecture, American Associaion of Neurological Surgeons, Miami, FL, April 16, 2012.
- 2. Henry Botterell Visiting Professorship: "Surgical Treatment of Spinal Cord Ependymomas" Toronto Western Hospital, Division of Neurosurgery, University of Toronto, Toronto, Ontario, Canada, October 30-31, 2006.
- 3. Visiting Professor: Raymond Swaya MD Lectureship, Houston, Texas, January 9, 2015.
- 4. Invited Speaker: 9th Annual Melvyn M. Gelch, M.D. Lectureship, Brown Medical School, June 3, 2015.
- Visiting Professor: 2017 Hugh S. Wisoff Memorial Lecture," Recent Advances in Surgical Management of Spinal Tumors" Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY, March 22, 2017.
- 6. Visiting Professor: Desaussure Lectureship Series. "Recent Advances in Surgical Management of Spinal Neoplasms" University of Tennessee Health Science Center, Memphis, Tennessee, May 11, 2018.
- 7. Visiting Professor, University of Arkansas for Medical Sciences, Flanagan Boop Endowed Lectureship in Spinal Surgery, "Recent Advances in Surgical Management of Spinal Neoplasms', Little Rock, AK, September 21-22, 2018.
- 8. Visiting Professor: Robert E. Wharen Distinguished Lecture, "Recent Advances in Surgical Management of Spinal Neoplasms", Mayo Clinic, Jacksonville, FL, April 28-29, 2019.
- 9. Visiting Professor: Stephen J. Lipson Orthopaedic and Spine Lectureship, "Recent Advances in Surgical Management of Spinal Neoplasms", Brigham and Women's Hospital, Boston, MA, June 18-19, 2019.

Other Educational Programs

- 1. Surgical management of metastatic tumors of the spinal column. The University of Texas M. D. Anderson Cancer Center, Brain Tumor Center, Partners in Excellence, January, 1996.
- 2. Management of metastatic spinal tumors. Clinical Oncology Grand Rounds, The University of Texas M. D. Anderson Cancer Center Continuing Medical Education, Houston, Texas, January, 1996.
- 3. Department of Neurosurgery Didactic Lecture Series: Metastatic spinal disease. The University of Texas M. D. Anderson Cancer Center, Houston, TX, December, 1998.
- 4. Management of metastatic spinal tumors. Rehabilitation/Physical Therapy Seminar Series, The University of Texas M. D. Anderson Cancer Center, Houston, TX, September, 1999.
- 5. "Spinal Program: From Occiput to Coccyx" presented at Neurosurgical Oncology: The Decade Ahead sponsored by UT M. D. Anderson Cancer Center, January 26-28, 2001.
- 6. "Pain and Spine" moderator at Neurosurgical Oncology: The Decade Ahead sponsored by UT M. D. Anderson Cancer Center, January 26-28, 2001.
- 7. "Metastatic Spine Disease: Conventional Treatment Options" presented at the UT MD Anderson Cancer Center Grand Rounds, April 6, 2001.
- 8. "Surgical Management of Spinal Neoplasms" presented at the UT MD Anderson Cancer Center Radiation Oncology Grand Rounds, June 27, 2001.
- 9. Department of Neurosurgery Didactic Lecture Series: Sacral Tumors. The University of Texas M. D. Anderson Cancer Center, Houston, TX, January, 2002.
- 10. Department of Neuro-Oncology Core Curriculum Lecture: Management of Metastatic Tumors. The University of Texas M. D. Anderson Cancer Center, Houston, TX, January, 2002.

- 11. "Management of Sacral Tumors" presented at the Department of Surgical Oncology Grand Rounds at The University of Texas M. D. Anderson Cancer Center, February 20, 2002.
- 12. "Challenging Spine Tumor Cases" moderator at the American Association of Neurological Surgeons and Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves 18th Annual Meeting, Orlando, Florida, March 1, 2002.
- 13. "Surgical Treatment of Spinal Neoplasms" presented at Neurosurgical Grand Rounds at Johns Hopkins Hospital, January, 2003.
- 14. "Degenerative Lumbar Spine: Indications & New Approaches" presented for University of Michigan Medical School Office of Continuing Medical Education, Ann Arbor, Michigan, January 11, 2003.
- 15. "Neurosurgery of the Spine" presented at Surgical Grand Rounds in Hurd Hall at Johns Hopkins Hospital, April, 2003.
- 16. "Surgical Management of Spinal Neoplasms" presented at Neurosurgical Critical Care Unit (NCCU) at Johns Hopkins Hospital, June, 2003.
- 17. "Vertebral Augmentation/Fusion" moderator at the North American Spine Society 18th Annual Meeting, San Diego, California, October 25, 2003.
- 18. "Metastases to the Spine" Moderator at AO ASIF, Davos Platz, Switzerland, December 14-19, 2003.
- 19. "Bone graft harvesting set" interactive workshop at AO ASIF, Davos Platz, Switzerland, December 14-19, 2003.
- 20. "Management of Spinal Cord Ependymomas" presented at Neurosurgical Grand Rounds at Johns Hopkins Hospital, January, 2004.
- 21. "Surgical Management of Breast Mets to the Brain" presented at Current Concepts in the Multidisciplinary Management of Breast Cancer at Johns Hopkins Breast Center/The Institute for Johns Hopkins Nursing, April 2, 2004.
- 22. "Surgical Management of Breast Mets to the Spine" presented at Current Concepts in the Multidisciplinary Management of Breast Cancer at Johns Hopkins Breast Center/The Institute for Johns Hopkins Nursing, April 2, 2004.
- 23. "Spinal Cord Tumors" presented at Neurology Conference at the Johns Hopkins Hospital, May 18, 2004.
- 24. "Discogenic Back Pain" presented at the AO ASIF Advanced Concepts in the Management of Spinal Disorders, September 11, 2004.
- 25. "Neoplastic Disease" presented at the AO ASIF Residents' Forum. Annapolis, Maryland, October 1, 2004.
- 26. "Principles of Anterior Plating: Avoiding Complications, Dynamic vs. Static" and "Occipitocervical Fixation: Anatomy, Fixation Techniques and Alignment" present at the North American Spine Society Cervical Fixation Hands-On Course. Chicago, Illinois, January 21-22, 2005.
- 27. "Spinal Metastases" presented at NIH Oncology Residents Luncheon, February 22, 2005.
- 28. "En bloc Resection for Primary Spinal Neoplasms" presented at George Washington University, Washington, DC, February 22, 2005.
- 29. Guest Examiner, Spring Examinations of the American Board of Neurological Surgery, May 24-28, 2005.
- 30. "Surgical Management of Spinal Tumors" presented at Orthopaedic Surgery Grand Rounds at Johns Hopkins Hospital, June 9, 2005.
- 31. "Thoracolumbar Spine Trauma", Moderator and "Anterior Fusion: Techniques, Indications and Devices," Presenter at the AO Spine Advanced Concepts in Management of Spinal Disorders Course, Monterey, California, August 10-14, 2005.
- 32. En Bloc Resection for Primary Spinal Tumors," Spine Tumor Update Pre-Course, Presenter, "Lumbar Fusion", Concurrent Session, Co-Moderator and "Tumors and Reconstruction," Special Interest Poster Presentation, Co-Moderator at the North American Spine Society 20th Annual Meeting, Philadelphia, Pennsylvania, September 27-29, 2005.
- 33. "Kyphoplasty/Vertbroplasty for Low Back Pain" Section on Pain I Low Back Pain Interventions: Where is the Evidence? Presenter and "Surgical Approaches to Primary Spine Tumors," Metastatic Spinal Disease: Roles of Radiation and Surgery, Presenter at the Quo Vadis Masters Video Symposium/CNS Annual Meeting, Boston, Massachusetts, October 10-12, 2005.
- 34. "Spinal Column Metastases Management," Moderator, Luncheon Seminar, Congress of Neurological Surgeons, 2016 Annual Meeting,, September 24 28, 2016.
- 35. Guest Examiner, Spring Examinations of the American BoarBenzeld of Neurological Surgery, May 3 5, 2019.
- 36. "Spinal Tumor Surgery," Moderator, Luncheon Seminar, Congress of Neurological Surgeons, 2019 Annual Meeting,, October 19 22, 2019.

GRANTS

- 1. Principal Investigator, Spine Registry to Collect Outcome Measures Related to the Disease Status of Paitents with Spine Disorders (PTRON) 2017-present
- 2. Principal Investigator, Metastatic Tumor Research and Outcome Network (MTRON): A multicenter prospective registry for

- the management of metastatic spine tumors. 2017-present
- 3. Intraoperative Imaging for Guidance, Patient Safety, and OR Quality Assurance, National Institutes of Health R01 Research Grant (R01-EB-017226) Co- Investigator (Siewerdsen PI) \$2,422,353 01-Sep-2014 to 31-Jul-2019
- 4. High-Performance 3D Imaging on a Mobile C-Arm (3) Industry Research Partnership Siemens Healthcare, Special Products (XP) Division, Co-Investigator (Siewerdsen PI) \$1,393,100, 01-Oct-2015 to 30-Sep-2018
- 5. Principal Investigator, Spinal Reconstruction Using SYNTHES Spine SYNEXTM System Following Corpectomy/Vertebrectomy in Tumor Patients, Number CS01-138, 2001, \$250,000. Data Management Support for Ongoing Research, \$56,796 Completed
- 6. AO North America Spine Fellowship Educational Grant \$75,000 x 10 years. Completed
- 7. EBI Study: Prospective Randomized Study for Posterolateral Lumbar Fusion with Bone Stimulator, \$210,000
- 8. Surgical v.s Nonoperative Treatment of Metastatic Epidural Spinal Cord Compression, AOSpine North America, \$ 45,000 Completed
- 9. Predictors of Mortality and Mordidity in the Surgical Mangement of Primary Tumors of Spine, AOSpine North America, \$19,000 Completed
- 10. Interdisciplinary reliability of the Spinal Instability Neoplasm Score in radiologists and radiation oncologists, AOspine International, \$10,700 Completed
- 11. Efficiency of Rilozole in Patients with Cervical Spondylic Myelopathy Undergoing Surgical Treatment: Multi-Center Double-Blind Randomized Controlled Trial, \$34,000 Completed
- 12. National Neurosurgery Quality and Outcomes Database (N2QOD): A Prospective Registry for Quality Reporting Phase 1: The Lumbar Spine Module. Ongoing
- 13. Prospective Evaluation of Minimally Invasive Surgery vs Traditional Open Techniques in the Treatment of Metastatic Spine Tumors. Completed
- 14. CSSG Multi Center Retrospective and Observational Data Registry for Clinical and Radiographic Outcomes of Complex Spine Surgeries. Completed

Inventions

- 1. Gokaslan Z, Khanna A, Prince J, Siewerdsen JH "MR-LevelCheck A Method for Automatic Localization of Structures in Projection Images" (D13076) Report of Invention Filed 5/12/2014 (2014)
- 2. Gokaslan Z, Otake Y, Siewerdsen JH, Wang A, "System and Method of Information Fusion using an Optical Projector in Medical Interventions" (D12264) Reported Invention Filed 12/12/2012 (2012)

Scientific Exhibitions

1. **Gokaslan ZL,** Leavens ME, Romsdahl MM: Surgical approaches to tumors involving the sacrum and iliac bone and adjacent structures. American College of Surgeons Scientific Exhibition Award, Clinical Congress, New Orleans, LA, October 22-27, 1995.

Science Projects

- Principal Investigator, Administration of tumor necrosis factor-alpha induces increased monocyte recruitment following peripheral nerve crush injury, Protocol Number: MO02M452, Initiation date: 10/28/2002, Expiration date: 10/28/2003, Other Investigators: Ajay Mantha, Eric Amundson M.D., Betty Tyler, Status – Completed
- 2. Principal Investigator, Establishment of a novel intravertebral tumor model and efficacy study of controlled release chemotherapy polymers in rabbits, Protocol Number: RB02M413, Initiation date: 10/30/2002, Expiration date: 10/30/2003, Other Investigators: Eric Amundson M.D., Betty Tyler, Henry Brem M.D. (P.I.), Status Completed
- 3. Principal Investigator, A graded model of aneurysm clip induced spinal cord compression injury in the mouse: examination of experimental methods through behavioral and histological considerations, Protocol Number: M002M450, Initiation date: 10/30/2002, Expiration date: 10/30/2003, Other Investigators: Ajay Mantha, Eric Amundson M.D., Betty Tyler, Status Completed
- 4. Principal Investigator, Controlled release of osteoinductive growth factors for posterior lateral spine fusion in a rabbit model, Protocol Number: RB02M454, Initiation date: 01/20/2003, Expiration date: 01/20/2004, Other Investigators: Sherwin Hua M.D., Eric Amundson M.D., Paul Wang M.D., Betty Tyler, Status Completed
- 5. Principal Investigator, Controlled release of osteoinductive growth factors within vertebrate bodies to augment pedicle screw pull-out resistance, Protocol Number: SH02M700, Initiation date: 02/05/2003, Expiration date: 02/05/2004, Other Investigators: Sherwin Hua M.D., Eric Amundson M.D., Paul Wang M.D., Betty Tyler, Status Completed

- 6. Principal Investigator, Anterior Cervical Corpectomy Using Interbody Cage and Anterior Plate: Comparison of Autograft, Allograft, and Demineralized Bone Matrix, Protocol Number: SH02M700, Initiation date: 01/01/2004, Expiration date: 12/31/2004, Co-Investigator: Sherwin Hua M.D., Status Completed.
- 7. Principal Investigator. Surgical versus Non-operative Treatment of Metastatic Epidural Spinal Cord Compression. (MESCC). NCT00634426. Quality of Life and Cost-Effectiveness Outcomes. Initiation: 8/7/2008-Completed.
- 8. Principal Investigator. Predictors of Mortality and Mobidity in the Surgical Management of Primary Tumors of the Spine: A Multi-center Retrospective Cohort Sutfy with a Cross-Sectional. Initiation Date: 07/10/2012-Completed.

Other

- 1. Collaborator, Surgery versus stereotactic radiosurgery in the treatment of single brain metastases: a randomized prospective trial, NS 97-199, PI Frederick Lang, M.D., 1998-2002.
- 2. Collaborator, Surgery with Whole Brain Radiation Therapy versus whole Brain Radiation Therapy Alone in the Treatment of Multiple Brain Metastases: A Prospective Randomized Trial, ID98-028, PI Raymond Sawaya, M.D., 1998-2002.
- 3. Collaborator, Prospective, Randomized, Double Blind, Placebo-Controlled Trial of Prophylactic Phenytoin for Patients Undergoing Resection of Metastatic Brain Tumors, ID99-318, PI Frederick Lang, Not Activated, IRB Approved, 1999-2002.
- Collaborator, Prospective, Randomized, Double Blind, Placebo-Controlled Trial of Prophylactic Phenytoin for Patients Undergoing Resection of Primary Brain Tumors, ID99-320, PI Dr. Frederick Lang, Not Activated, IRB Approved, 1999-2002.
- 5. Principal Investigator, Spinal cord compression by epidural neoplasm, Animal Protocol #9-99-08031.
- 6. Principal Investigator, The role of proteases and their inhibitors in spinal tumors, Protocol #LAB95-025, 1999-2001.
- 7. Principal Investigator, Spinal Reconstruction Using Synthes Spine SynexTM System Following Corpectomy/Vertebrectomy In Tumor Patients, Protocol ID01-442, 10/2001, \$250,000 (\$125,000/year), 2001-2002.
- 8. Principal Investigator, A Prospective Multi-Center, Randomized Controlled Study to Compare the Spinal Sealant System as an Adjunct to Sutured Dural Repair to Standard of Care Methods during Spinal Surgery, Protocol Number: DRS-05-001, Status: Completed.

UNIVERSITY TEACHING ROLES

Courses Taught

- 1. Management of primary spinal cord tumors; Controversies in spinal cord compression; Image-guided surgery "Mini Course": Spinal applications. The University of Texas M. D. Anderson Cancer Center 40th Annual Clinical Conference: Cancer and the Central Nervous System, Houston, TX, March 1997.
- 2. Spinal instrumentation Review Course. The University of Texas M. D. Anderson, Houston, TX, January 1999.
- 3. Spinal Instrumentation Review Course. The University of Texas M. D. Anderson, Houston, TX, August 5, 2000.

Mentoring

Direct Supervision

Undergraduate and Allied Health Students

- 1. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Jake Kurian, 1999
- 2. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Tronya Hawkins, 1999

Medical Students

- 1. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Derek M. Schoppa, 1994-1995
- 2. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Jonathan Brett Gentry, 1995-1996 (Currently, Chief Resident, Department of Neurosurgery, Baylor College of Medicine, Houston, TX)
- 3. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Vivek Bansal, BS, 1996
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Adriana Kaczraj, MS and Jared Stringer, MS, 1997
- Mentor, Warren Alpert Medical School of Brown University, Department of Neurosurgery, Adriel Barrios-Anderson, 2019-2020.

Residents and Fellows

 Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Maarouf Hammoud, M.D., Neurosurgical-Oncology Fellow, 1993-1995

- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Salim Kanaan, M.D., Neurosurgical-Oncology Fellow, 1993-1995
- 3. Mentor, UT M.D. Anderson Cancer Center, Department of Neurosurgery, David Eng, M.D., Ph.D., Neurosurgical-Oncology Fellow, 1995-1996. (Currently Assistant Professor of Neurosurgery, University of Syracuse, Syracuse, NY)
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Frederick Lang, M.D., Neurosurgical-Oncology Fellow, 1995-1996. (Currently Associate Professor of Neurosurgery, Department of Neurosurgery, UT M. D. Anderson Cancer Center, Houston, TX)
- 5. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Suresh Sankhla, M.D., Neurosurgical-Oncology Fellow, 1996-1997
- 6. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Emilio Nardone, M.D., Neurosurgical-Oncology Fellow, 1996-1997
- 7. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Haluk Berk, MD, Postgraduate, Dokuz Eylul University, Izmir, Turkey, 1996 (Currently Professor of Orthopedic Surgery Department of Orthopedic Surgery)
- 8. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Robert Jackson, M.D., Baylor Resident Neurosurgery Rotation, 1997
- 9. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Christopher Michael, M.D., Baylor Resident Neurosurgery Rotation. 1997
- 10. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Steve Toms, M.D., Neurosurgical-Oncology Fellow, 1997-1998. (Currently Assistant Professor of Neurosurgery, Chief, Director of Neurosurgical Oncology, University of Oregon, Portland, OR)
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Rick Jensen, M.D., Neurosurgical Resident, 1997-1998
- 12. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, M.A. Aladag, MD, Postgraduate, University of Istanbul, Malatya, Turkey, 1997 (Currently Professor of Neurosurgery, Chief of Staff, Taksim Hospital, Istanbul, Turkey)
- 13. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, James Garber, M.D., Neurosurgical Resident, 1997
- 14. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Andrew Sloan, M.D. Neurosurgical-Oncology Fellow, 1997-1998. (Currently Assistant Professor of Neurosurgery, Chief, Director of Neurosurgical Oncology, Wayne State University, Detroit, MI)
- 15. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Summer Lal, M.D., Neurosurgical-Oncology Fellow, 1998-2000
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Julie E. York, MD, Postgraduate, University of Utah, 1998 (Currently Assistant Professor of Neurosurgery, Department of Neurosurgery, Loyola University, Chicago, Illinois)
- 17. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Michel LaCroix, M.D. Neurosurgical-Oncology Fellow, 1998-2000. (Currently Assistant Professor of Neurosurgery, UT Medical Branch at Galveston, Galveston, TX)
- 18. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Gery Hsu, M.D., Baylor Resident Neurosurgery Rotation, 1999
- 19. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Brent Alford, M.D., Baylor Resident Neurosurgery Rotation. 1999
- 20. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Peter Alexander, M.D., Baylor Resident Neurosurgery Rotation, 1999
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Hao Liu, MD, Postgraduate, Hospital of West China University of Medical Sciences, 1999 (currently Orthopedic Spinal Surgeon, Hospital of West China University of Medical Sciences)
- 22. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Daryl Fourney, M.D., Postdoctoral Fellow, Royal University Hospital, Saskatoon, Saskatchewan, Canada, 1999 and Neurosurgical-Oncology Fellow, 2001-2002
- 23. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Paul Holman, M.D., Neurosurgical Resident, 2000
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, John Dickerson, M.D., Baylor Resident Rotation, 2000
- 25. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Chris Kalhorn, M.D., Resident, 2000
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Erwin Lo, M.D., UT Medical Branch Galveston Resident Neurosurgery, 2000
- 27. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Jonathan Brent Gentry, M.D., Baylor Resident Neurosurgery Rotation, 2000

- 28. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Eric Marmor, M.D., Neurosurgical-Oncology Fellow, 2000-2001. Currently Assistant Professor of Neurosurgery, The Sir Mortimer B. Davis Jewish General Hospital, McGill University, Montreal, Canada.
- 29. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Yashail Vora, M.D., Neurosurgical-Oncology Fellow, 2000-2001
- 30. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Jeffery Weinberg, M.D., Neurosurgical-Oncology Fellow, 2000-2001. (Currently Assistant Professor of Neurosurgery, UT M. D. Anderson Cancer Center, Houston, TX)
- 31. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Zvi Cohen, M.D., Neurosurgical-Oncology Fellow, 2000-2001
- 32. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Fadi Hanbali, M.D., Neurosurgical-Oncology Fellow, 2000-2001. Currently Assistant Professor of Neurosurgery, UT Medical Branch at Galveston, Galveston, TX.
- 33. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Tony Maioriello, M.D., UTMB Galveston Resident Neurosurgery Rotation, 2001
- 34. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Remi Nader, M.D., UTMB Galveston Resident Neurosurgery Rotation, 2001
- 35. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Jean Paul Wolinsky, M.D., Baylor Resident Neurosurgery Rotation, 2001
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Vijayabalan Balasingam, M.D., Neurosurgical-Oncology Fellow, 2001-2002
- Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Sujit Prabu, M.D., Neurosurgical-Oncology Fellow, 2001-2002
- 38. Mentor, UT M. D. Anderson Cancer Center, Department of Neurosurgery, Joseph Shehadi, M.D., Neurosurgical-Oncology Fellow, 2001-2002
- 39. Mentor, Johns Hopkins University, Department of Neurosurgery, Matt Lesniak, M.D., Chief Residency, 2002-2003.
- 40. Mentor, Johns Hopkins University, Department of Neurosurgery, Philip Jay Storm, M.D., Chief Residency, 2002-2003.
- 41. Mentor, Johns Hopkins University, Department of Neurosurgery, Dean Chou, M.D., Chief Residency, 2003-2004.
- 42. Mentor, Johns Hopkins University, Department of Neurosurgery, Jack Moriarity, M.D., Chief Residency, 2002-2003.
- 43. Mentor, Johns Hopkins University, Department of Neurosurgery, Amer Samdani, Chief Residency, 2003 2004.
- 44. Mentor, Johns Hopkins University, Department of Neurosurgery, Paul Wang, Chief Residency, 2003 2004.
- 45. Mentor, Johns Hopkins University, Department of Neurosurgery, Ira Garonzik, M.D., Chief Residency, 2003-2004.
- 46. Mentor, Johns Hopkins University, Department of Neurosurgery, Ira Garonzik, M.D., Spine Instructorship, 2004-2005.
- 47. Mentor, Johns Hopkins University, Department of Neurosurgery, Jean-Paul Wolinsky, M.D., Spine Instructorship, 2004-2005
- 48. Mentor, Johns Hopkins University, Department of Neurosurgery, Timothy Witham, M.D., Spine Instructorship, 2005-2006.
- 49. Mentor, Johns Hopkins University, Department of Neurosurgery, Yevgeniy Khavkin, M.D., Spine Instructorship, 2005-2006.
- 50. Mentor, Johns Hopkins University, Department of Neurosurgery, Jacob Schlosser, M.D., Chief Residency, 2005-2006.
- 51. Mentor, Johns Hopkins University, Department of Neurosurgery, Michael Schwarz, M.D., Chief Residency, 2005-2006.
- 52. Mentor, Johns Hopkins University, Department of Neurosurgery, Carlos Bagley, M.D., Chief Residency, Spine Fellowship, 2005-2007.
- 53. Mentor, Johns Hopkins University, Department of Neurosurgery, Ali Bydon, M.D., Spine Instructorship, 2006-2007.
- Mentor, Johns Hopkins University, Department of Neurosurgery, Daniel Sciubba, M.D., Chief Residency, Spine Fellowship, 2006-2008.
- 55. Mentor, Johns Hopkins University, Department of Neurosurgery, Patrick Hsieh, M.D., Spine Instructorship, 2007-2008.
- 56. Mentor, Johns Hopkins University, Department of Neurosurgery, John Chi, M.D., Spine Instructorship, 2007-2008.
- 57. Mentor, Johns Hopkins University, Department of Neurosurgery, Ibrahim Omeis, M.D., Spine Instructorship, 2007-2008
- 58. Mentor, Johns Hopkins University, Department of Neurosurgery, Oren Gottfried, M.D., Spine Instructorship, 2007-2008
- 59. Mentor, Johns Hopkins University, Department of Neurosurgery, Michelle Clarke, M.D., Spine Instructorship, 2009-2010.
- 60. Mentor, Johns Hopkins University, Department of Neurosurgery, Reza Yessari, M.D., Spine Instructorship, 2009-2010.
- 61. Mentor, Johns Hopkins University, Department of Neurosurgery, Marcella Madera, M.D., Spine Instructorship, 2010-2011.
- 62. Mentor, Johns Hopkins University, Department of Neurosurgery, Ilya Laufer, M.D., Spine Instructorship, 2010-2011.
- 63. Mentor, Johns Hopkins University, Department of Neurosurgery, Ryan Kretzer, M.D., Spine Instructorship, 2011-2012.
- 64. Mentor, Johns Hopkins University, Department of Neurosurgery, Ali Baaj, M.D., Spine Instructorship, 2011-2012.
- 65. Mentor, Johns Hopkins University, Department of Neurosurgery, Paul Kaloostian, M.D., Spine Instructorship, 2012-2013.
- 66. Mentor, Johns Hopkins University, Department of Neurosurgery, Kristophe Karami, D.O., M.D., Spine Instructorship,

- 2012-2013.
- 67. Mentor, Johns Hopkins University, Department of Neurosurgery, Ali Ozturk, M.D., Spine Instructorship, 2013-2014.
- 68. Mentor, Johns Hopkins University, Department of Neurosurgery, Ankit Mehta, M.D., Spine Instructorship, 2013-2014.
- 69. Mentor, Johns Hopkins University, Department of Neurosurgery, Afman Desai, M.D., Spine Instructorship, 2013-2014.
- 70. Mentor, Johns Hopkins University, Department of Neurosurgery, Mo Bydon, M.D., Spine Fellowship, 2014-2015.
- 71. Mentor, Johns Hopkins University, Department of Neurosurgery, Benjamin Elder, M.D., Spine Fellowship, 2014-2015.
- 72. Mentor, Johns Hopkins University, Department of Neurosurgery, Sheng-fu (Larry) Lo, M.D., Spine Fellowship, 2014-2015.
- 73. Mentor, Johns Hopkins University, Department of Neurosurgery, Jared Marks, M.D., Spine Instructorship, 2015-2016.
- 74. Mentor, Johns Hopkins University, Department of Neurosurgery, Alia Hdeib, M.D., Spine Instructorship, 2015-2016.
- 75. Mentor, Johns Hopkins University, Department of Neurosurgery, Jay Rhee, M.D., Spine Instructorship, 2015-2016.
- 76. Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, Hesham Soliman, M.D., Complex Fellowship, 2016-2017.
- 77. Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, Jared Fridley, M.D., Complex Spine Fellowship, 2016-2017.
- Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, David Choi, M.D., Chief Resident, 2016-2017.
- 79. Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, David Choi, M.D., Complex Spine Fellowship, 2017-2018.
- 80. Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, Michael Galgano, M.D., Complex Spine Fellowship, 2017-2018.
- 81. Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, Thomas Kosztowski, M.D., Complex Spine Fellowship, 2017-2018.
- 82. Mentor, Rhode Island Hospital/Brown Medical School, Department of Neurosurgery, Radmehr Torabi, M.D., Chief Resident, 2016-2017.

OTHER PROFESSIONAL ACCOMPLISHMENTS

Presentations

1. FDA meeting regarding the use of investigational products of Synthes Spine TM in the treatment of spinal tumors with corpectomy/vertebrectomy and reconstruction. Washington, DC, March 6, 2000.

Other

- 1. AO ASIF Continuing Education Faculty Retreat. Discussion of details regarding the future educational courses and symposia to be organized by AO North America, Colorado Springs, CO, May 19-21, 2000.
- 2. Pictured in the Messenger receiving The University of Texas M. D. Anderson Cancer Center Faculty Achievement Award in Patient Care for 2001. Messenger 31, (1):2, 2002.
- 3. AO ASIF Continuing Education Faculty Retreat. Sagamore, NY, August, 2002.
- 4. Featured in Brain Waves Publication of Johns Hopkins University School of Medicine, 2002.
- 5. Johns Hopkins Medicine Leadership Development Program, Johns Hopkins University School of Medicine, December, 2006.
- 6. Harvard Leadership Development Conference, Harvard School of Public Health, October 19-31, 2008.
- 7. NREF Scientific Advisory Committee Member 2009- present
- 8. CNS/AANS, Moderator for the 2010 Annual Meeting, Philadelphia, PA, April 30 May 5, 2010.
- 9. World Spinal Column Society, Visiting Board Member, 2014 2017.
- 10. Scholars in Residence, American Board of Neurological Society 2017-2021.