

PATRICIA LEIGH ZADNIK SULLIVAN

Office Address: 593 Eddy St, Providence, RI 02903

Education: 9/2004-6/2008 AB Harvard University, *Magna Cum Laude*  
9/2008-5/2014 MD Johns Hopkins University School of Medicine

Postgraduate Training and Fellowship Appointments:

7/2014 - 6/2021 Neurosurgery Resident, University of Pennsylvania, Philadelphia PA  
7/2021 - 7/2022 Reconstructive Spine and Spinal Oncology Fellowship  
Brown University Rhode Island Hospital, Providence, RI

Licensure: Rhode Island MD  
Rhode Island DEA

Awards, Honors and Membership in Honorary Societies:

2012 Harvey Cushing Medical Student Research Award  
2012 Outstanding Poster, AANS/CNS Section of Spine and Peripheral Nerves 2018 Outstanding Oral Abstract, Pennsylvania Neurosurgical Society  
2019 Pan-Philadelphia Neurosurgical Conference, Top Oral Abstract Award  
2019 The American Society for Advanced Recovery, Third Place Abstract Award  
2021 Resident Teaching Award, University of Pennsylvania Department of Neurosurgery  
2022 Kuntz Award, AANS/CNS Spine Section  
2022 Alpha Omega Alpha Honor Society

Grants:

7/2018-7/2019 NIH T32 Training Grant. *Implantation of micro-tissue engineered neural networks (microTENNs) for axonal repair in a rat model of spinal cord injury.* PI Douglas Smith T32-NS043126-16.  
7/2021-7/2022 NREF Clinical Fellowship Grant

Committees:

2015-2021 Program Evaluation Committee Member, Department of Neurosurgery  
2018-2021 Resident Liason, Langfitt Society  
2018 Teaching Assistant, Neuroanatomy  
2018-2019 FOCUS Women in Medicine, Planning Committee Member  
2019 NREF/AANS Social Media Ambassador  
2020 Women in Neurosurgery (WINS), Outreach Committee  
2020 Women in Neurosurgery (WINS), Publication Committee  
2022 Community STEM x 100 Mentors at Brown University

Peer Reviewer:

2020 Cancer Management and Research  
2020 Practical Neurology  
2020 World Journal of Surgical Oncology  
2022 World Journal of Oncology  
2022 Journal of Spine Surgery

Guest Editor: 2022 INAT

Bibliography:

Submitted:

Ghenbot Y, **Zadnik Sullivan P**, Nasrallah I, Nelson E, Pruitt A, Zager E. Isolated lymphomatoid granulomatosis of the central nervous system mimicking trigeminal neuropathy, Bell's palsy and glioblastoma in an Epstein-Barr negative immunocompetent host. *Submitted Neuropathology*

Spadola M, Burrell J, Al-Bayar A, **Zadnik Sullivan P**, Tien V, Browne K, Cullen K, Ozturk A. Repairing injured rodent spinal cord using tissue engineered spinal tracts. *Submitted Neurosurgery*

Published:

1. Hagan MJ, Pertsch NJ, Leary OP, Ganga A, Sastry R, Xi K, Zheng B, Behar M, Camara-Quintana JQ, Niu T, **Sullivan PZ**, Abinader JF, Telfeian AE, Gokaslan ZL, Oyelese AA, Fridley JS. Influence of socioeconomic factors on discharge disposition following traumatic cervicothoracic spinal cord injury at level I and II trauma centers in the United States. *N Am Spine Soc J*. 2022 Nov 26.
2. Hagan MJ, Sastry RA, Feler J, Abdulrazeq H, **Sullivan PZ**, Abinader JF, Camara JQ, Niu T, Fridley JS, Oyelese AA, Sampath P, Telfeian AE, Gokaslan ZL, Toms SA, Weil RJ. Neighborhood-level socioeconomic status, extended length of stay, and discharge disposition following elective lumbar spine surgery. *N Am Spine Soc J*. 2022 Nov 26.
3. Ganga A, Kim EJ, Tang OY, Feler JR, Sastry RA, Anderson MN, Keith SE, Fridley JS, Gokaslan ZL, Cielo DJ, Toms SA, **Sullivan PZ**. *Injury*. 2023 Jan 3.
4. Sastry R, Hagan M, Feler J, Abdulrazeq H, **Sullivan PZ**, Fernandez Abinader J, Camara J, Niu T, Fridley J, Oyelese A, Sampath P, Telfeian A, Gokaslan Z, Toms S, Weil R. Time of discharge and 30-day re-presentation to an acute care setting after elective lumbar decompression surgery. *Neurosurgery*. 2022 Nov 16.
5. Hagan MJ, Pertsch NJ, Leary OP, Sastry R, Ganga A, Xi K, Zheng B, Kondamuri NS, Camara-Quintana JQ, Niu T, **Sullivan PZ**, Abinader JF, Telfeian AE, Gokaslan ZL, Oyelese AA, Fridley JS. Influence of sociodemographic and psychosocial factors on length of stay after surgical management of traumatic spine fracture with spinal cord injury. *World Neurosurgery*. 2022 Oct
6. Tang O, **Zadnik Sullivan P**, Tubre T, Feler J, Shai B, Hart J, Gokaslan Z. Navigation-assisted resection of tumoral calcinosis of the lumbosacral spine: Illustrative case. *Journal of Neurosurgery: Case Lessons*. 2022 Jul 25
7. Sastry RA, Hagan MJ, Feler J, Shaaya EA, **Sullivan PZ**, Abinader JF, Camara JQ, Niu T, Fridley JS, Oyelese AA, Sampath P, Telfeian AE, Gokaslan ZL, Toms SA, Weil RJ. Influence of Time of Discharge and Length of Stay on 30-Day Outcomes After Elective Anterior Cervical Spine Surgery. *Neurosurgery*. 2022 Jun 1;90(6):734-742.
8. Hagan MJ, Pertsch NJ, Leary OP, Xi K, Zheng B, Camara-Quintana JQ, Niu T, **Sullivan PZ**, Abinader JF, Telfeian AE, Gokaslan ZL, Oyelese AA, Fridley JS. Socioeconomic and Psychosocial Predictors of Magnetic Resonance Imaging After Cervical and Thoracic Spine Trauma in the United States. *World Neurosurg*. 2022 May;161:e757-e766.
9. Feler J, Sun F, Bajaj A, Hagan M, Kanekar S, **Sullivan PLZ**, Fridley JS, Gokaslan ZL. Complication avoidance in management of vertebral column tumors. *Curr Oncol*. 2022 Feb 25;29(3):1442-1454.
10. Sastry R, Hagan M, Feler J, Shaaya E, **Sullivan PZ**, Fernandez Abinader J, Camara J, Niu T, Fridley J, Oyelese A, Sampath P, Telfeian A, Gokaslan Z, Toms S, Weil R. Neighborhood level Socioeconomic Status Predicts Extended Length of Stay Following Elective Anterior Cervical Spine Surgery. *World Neurosurgery*. Online ahead of print 4 April 2022
11. **Zadnik Sullivan P**, Niu T, Fernandez Abinader J, Syed S, Sampath P, Telfeian A, Fridley J, Klinge P, Camara J, Oyelese A, Gokaslan Z. Evolution of surgical treatment of metastatic spine tumors. *J Neurooncol*. 2022 March 20.
12. Hagan MJ, Pertsch NJ, Leary O, Xi K, Zheng B, Camara-Quintana JQ, Niu T, **Sullivan PZ**, Abinader JF, Telfeian AE, Gokaslan ZL, Oyelese AA, Fridley JS. Socioeconomic and psychosocial predictors of magnetic resonance imaging after cervical and thoracic spine trauma in the United States. *World Neurosurgery*. 2022 Feb 26. Online ahead of print
13. Albayar A, Ramayya A, **Sullivan PZ**, Yoon J, Saifi C, Roche A, Ali ZS, Welch WC, Arlet V, Ozturk AK. Postoperative sagittal spinal alignment changes following corrective surgery in adult spinal deformity. *Int J Spine Surg*. 2021 Dec; 15(6): 1082-1089.
14. **Zadnik Sullivan P**, Albayar A, Burrell J, Arena J, Budlow J, Browne K, Johnson V, Smith D, Cullen K, Ozturk A. Implantation of engineered axon tracts to bridge spinal cord injury beyond the glial scar in rats. *Tissue Eng Part A*. 2021 Oct; 27(19-20):1264-1274.
15. Goodsell K, **Zadnik Sullivan P**, Macaluso M, Blue R, Ghenbot Y, Ozturk A, Pukenas B, Weinstein G, Schuster J. Osteoradionecrosis of the occipitocervical junction following radiation for head and neck cancer. *World Neurosurgery*. 2020 March 4; 138:381-385.
16. Piazza M, **Sullivan PZ**, Madsen P, Branche M, McShane B, Saylany A, Sharma N, Arlet V, Ozturk A. Proximal junctional kyphosis following T10-pelvis fusion presenting with neurologic compromise: case presentations and review of the literature. *J Neurosurgery*. 2020 March 18:1-6.
17. **Zadnik Sullivan P**, Albayar A, Ramayya A, McShane B, Marcotte P, Malhotra N, Ali Z, Chen HI, Schuster J, Grady MS, Janjua B, Saifi C, Jones J, Ozturk A. Association of spinal instability due to metastatic disease with increased mortality and a proposed clinical pathway for treatment. *JNS Spine*. 2020 Feb 14:1-8.
18. Sadik ME, Ozturk AK, Albayar A, Branche M, **Zadnik Sullivan P**, Schlosser LO, Browne K, Jaye A, Smith DH. A Strategy Toward Bridging a Complete Spinal Cord Lesion Using Stretch-Grown Axons. *Tissue Engineering Part A*. 2020 Jan 14.

19. Xu Z, AlBayar A, Dolle JP, Hansel G, Bianchini J, **Sullivan PZ**, Cullen DK, Smith DH, Ozturk A. Dorsal root ganglion axons facilitate and guide the outgrowth of cortical neurons: *In vitro* modeling of spinal cord injury repair. *Restor Neurol Neurosci* 2019 Sep 28.
20. AlBayar A, **Zadnik Sullivan P**, Blue R, Leonard J, Kung D, Ozturk AK, Chen I, Schuster J. Risk of Vertebral artery injury and stroke following blunt and penetrating cervical spine trauma: A retrospective review of 729 patients. *World Neurosurgery*. 2019 Jul 4.
21. Caplan IF, **Zadnik Sullivan P**, Galuser G, Choudhri O, Kung D, ORourke DM, Osiemo B, Goodrich S, McClintock SD, Malhotra NR. The LACE+ index fails to predict 30-90 day readmission for supratentorial craniotomy patients: A retrospective series of 238 surgical procedures. *Clin Neurol Neurosurg*. 2019 May 1; 182:79-83.
22. Caplan IF, **Sullivan PZ**, Kung D, O'Rourke DM, Choudhri O, Glauser G, Osiemo B, Goodrich S, McClintock SD, Malhotra NR. The LACE+ Index as Predictor of 30-day readmission in brain tumor population. *World Neurosurgery*. 2019 Jul; 127:e443-448.
23. Li C, **Zadnik Sullivan P**, Cho S, Nasrallah M, Buch L, Chen HC, Lee JY. Intraoperative Molecular Imaging with Second-Window ICG Facilitates Confirmation of Contrast-Enhancing Tissue During Intracranial Stereotactic Needle Biopsy. *World Neurosurgery*. 2019 March 15.
24. Ozturk A, **Zadnik Sullivan P**, Arlet V. Sacral Pedicle Subtraction Osteotomy for an Extreme Case of Positive Sagittal Balance: Case Report and Review of the Literature. *J Neurosurg Spine*. 2018 Feb 9:1-4.
25. Piazza M, McShane BJ, Ramayya AG, **Sullivan PZ**, Ali ZS, Marcotte PJ, Welch WC, Ozturk AK. Posterior Cervical Laminectomy Results in Better Radiographic Decompression of Spinal Cord Compared with Anterior Cervical Discectomy and Fusion. *World Neurosurg*. 2018 Feb; 110:e362-366.
26. Bettegowda C, Yip S, Lo SL, Fisher CG, Boriani S, Rhines LD, Wang JY, Lazary A, Gambarotti M, Wang WL, Luzzati A, Dekutoski MB, Bilsky MH, Chou D, Fehlings MG, McCarthy EF, Quraishi NA, Reynolds JJ, Sciubba DM, Williams RP, Wolinsky JP, **Zadnik PL**, Zhang M, Germscheid NM, Kalampoki V, Varga PP, Gokaslan ZL; AOSpine Knowledge Forum Tumor. Spinal column chordoma: prognostic significance of clinical variables and T (brachyury) gene SNP rs2305089 for local recurrence and overall survival. *Neuro Oncol*. 2017 Mar 1; 19(3):405-413.
27. Gokaslan ZL, **Zadnik PL**, Sciubba DM, Germscheid N, Goodwin CR, Wolinsky JP, Bettegowda C, Groves ML, Luzzati A, Rhines LD, Fisher CG, Varga PP, Dekutoski MB, Clarke MJ, Fehlings MG, Quraishi NA, Chou D, Reynolds JJ, Williams RP, Kawakara N, Boriani S. Mobile spine chordoma: results of 166 patients from the AOSpine Knowledge Forum Tumor database. *J Neurosurg Spine*. 2015 Dec 18: 1-8.
28. Kim JE, Pang J, Christensen JM, Coon D, **Zadnik PL**, Wolinsky JP, Gokaslan ZL, Bydon A, Sciubba DM, Witham T, Redett RJ, Sacks JM. Soft-tissue reconstruction after total en bloc sacrectomy. *J Neurosurg Spine*. 2015 Jun;22(6):571-81
29. Sciubba DM, Macki M, Bydon M, Germscheid NM, Wolinsky JP, Boriani S, Bettegowda C, Chou D, Luzzati A, Reynolds JJ, Szövérfi Z, **Zadnik P**, Rhines LD, Gokaslan ZL, Fisher CG, Varga PP. Long-term outcomes in primary spinal osteochondroma: a multicenter study of 27 patients. *J Neurosurg Spine*. 2015 Jun;22(6):582-8
30. Petteys RJ, Spitz SM, Rhee J, Rory Goodwin C, **Zadnik PL**, Sarabia-Estrada R, Groves ML, Bydon A, Witham TF, Wolinsky JP, Gokaslan ZL, Sciubba DM. Tokuhashi score is predictive of survival in a cohort of patients undergoing surgery for renal cell carcinoma spinal metastases. *Eur Spine J*. 2015 Mar 13.
31. **Zadnik PL**, Goodwin CR, Karami KJ, Mehta AI, Amin AG, Groves ML, Wolinsky JP, Witham TF, Bydon A, Gokaslan ZL, Sciubba DM: Outcomes following surgical intervention for impending and gross instability caused by multiple myeloma in the spinal column. *J Neurosurg Spine*. 2015 Mar; 22(3):301-9
32. Clarke MJ, **Zadnik PL**, Groves ML, Sciubba DM, Witham TF, Bydon A, Gokaslan ZL, Wolinsky JP.: Fusion following lateral mass reconstruction in the cervical spine. *J Neurosurg Spine*. 2015 Feb; 22(2):139-50
33. Groves ML, **Zadnik PL**, Kaloostian P, Sui J, Goodwin CR, Wolinsky JP, witham TF, Bydon A, Gokaslan ZL, Sciubba DM. Epidemiologic, functional and oncologic outcome analysis of spinal sarcomas treated surgically at a single institution over 10 years. *Spine J*. 15(1): 110-4, 2015
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35. Boriani S, Lo SF, Puvanesarajah V, Fisher CG, Varga PP, Rhines LD, Germscheid NM, Luzzati A, Chou CG, Reynolds JJ, Williams RP, **Zadnik P**, Groves M, Sciubba DM, Bettegowda C, Gokaslan ZL, AOSpine Knowledge Forum Tumor. *J Neurooncol*. 120(1): 171-8, 2014
36. Clarke MJ, **Zadnik PL**, Groves ML, Dasenbrock H, Sciubba D, Hsu W, Witham T, James P, Bydon A, Gokaslan Z, Wolinsky JP.: En bloc hemisacrectomy and internal hemipelvectomy via the posterior approach. *J Neurosurg Spine*. 21(3):458-67, 2014
37. Molina C, Ames C, Chou D, Rhines L, Hseih P, **Zadnik P**, Wolinsky JP, Gokaslan Z, Sciubba D.: Outcomes following attempted en bloc resection of cervical chordomas in the C1 and C2 region versus the subaxial region, a multi-institutional experience. 21(3):348-56, 2014
38. Traul KA, Romero JB, Brayton C, DeTolla L, Forbes-McBean N, Halquist MS, Karnes HT, Sarabia-Estrada R, Tomlinson MJ, Tyler BM, Ye X, **Zadnik P**, Guarnieri M.: Lab Animal. 2014

39. **Zadnik P**, Molina C, Sarabia-Estrada R, Groves M, Wabler M, Mihalic J, McCarthy E, Gokaslan Z, Ivkov R, Sciubba D.: Characterization of intra-tumor magnetic nanoparticle distribution and heating in a rat model of metastatic spine cancer. *J Neurosurg Spine.* 20(6):740-50, 2014
40. Kaloostian P, **Zadnik P**, Kim JE, Groves ML, Wolinsky JP, Gokaslan ZL, Witham TF, Bydon A, Sciubba DM. High incidence of postoperative morbidity in patients following surgical resection of metastatic pheochromocytoma in the spine. *J Neurosurg Spine.* 20(6): 726-33, 2014
41. Kaloostian PE, **Zadnik PL**, Etame AB, Vrionis FD, Gokaslan ZG, Sciubba DM. Surgical management of primary and metastatic spinal tumors. *Cancer Control.* 21(2):133-9, 2014
42. Dangelmajer S, **Zadnik P**, Rodriguez S, Gokaslan Z, Sciubba DM. Minimally invasive spine surgery for adult degenerative lumbar scoliosis. *Neurosurg Focus.* 36(5): E7, 2014
43. Grossman R, Brastianos H, Lal B, **Zadnik P**, Goodwin R, Brem H, Blakeley J, Tyler B. Combination of Anti VEGF Therapy and Temozolomide enhances survival in U87 Gliomas. *J Neurooncol.* 116(1):59-65, 2014 31. Kaloostian P, Yurter A, **Zadnik P**, Gokaslan ZL. Current paradigms for metastatic spinal disease: an evidence based review. *Ann Surg Oncol.* 21(1):248-62, 2014
44. **Zadnik P**, Yurter A, DeLeon R, Molina C, Groves M, McCarthy E, Sciubba D. Alveolar soft-part sarcoma in the sacrum: A case report and review of the literature. *Skeletal Radiol.* 43(1):115-20, 2014
45. **Zadnik P**, Hwang L, Ju D, Groves M, Sui J, Amin A, Witham T, Bydon A, Wolinsky JP, Gokaslan Z, Sciubba D. Prolonged survival following aggressive treatment for metastatic breast cancer in the spine. *Clin Exp Metastasis.* 31(1):47-55, 2014
46. Ju DG, **Zadnik PL**, Groves ML, Hwang L, Kaloostian PE, Wolinsky JP, Witham TF, Bydon A, Gokaslan Z, Sciubba D. Factors associated with improved outcomes following decompressive surgery for prostate cancer metastatic to the spine. *Neurosurgery.* 73(4):657-661, 2013
47. Sarabia-Estrada R, Molina C, **Zadnik P**, Sciubba D. A rat model of metastatic spinal cord compression using human prostate adenocarcinoma: histopathological and functional analysis. *Spine J.* 13(11):1597-606, 2013
48. Grossman R, Tyler B, Rudek M, Kim E, **Zadnik P**, Khan U, Blakeley J, Pathak A, Brem H. Microdialysis Measurement of Intratumoral Temozolomide Concentration after Cediranib, a Pan-VEGF Receptor Tyrosine Kinase Inhibitor, in a U87 Glioma Model. *Cancer Chemother Pharmacology.* 72(1):93-100, 2013
49. Molina C, **Zadnik PL**, Jean-Paul Wolinsky MD; Timothy F. Witham MD; Ali Bydon MD; Ziya L. Gokaslan MD; Daniel M. Sciubba MD. A cohort cost analysis of lumbar laminectomy. Current trends with surgeon and hospital fees distribution. *Spine Journal.* 13(11):1434-7, 2013
50. Kaloostian PE, **Zadnik PL**, Awad A, McCarthy E, Wolinsky JP, Sciubba DM. En bloc resection of a pheochromocytoma metastatic to the spine for local tumor control and for treatment of chronic catecholamine release and related hypertension. *Journal of Neurosurgery: Spine.* 18(6):611-6, 2013
51. **Zadnik PL**, Gokaslan Z, Burger P, Bettogowda C. Spinal cord tumors: Genetic advances and implications for treatment. *Nat Rev Neurol.* 9(5):257-66, 2013
52. **Zadnik P**, Sarabia-Estrada R, Groves ML, Molina C, Jackson C, McCarthy E, Gokaslan Z, Bydon A, Wolinsky JP, Witham T, Sciubba D. A novel animal model of human breast cancer metastasis to the spine: a pilot study using intracardiac injection and luciferase-expressing cells. Laboratory investigation. *Journal of Neurosurgery: Spine.* 18(3):217-25, 2013
53. Chaichana KL, **Zadnik P**, Weingart JD, Olivia A, Gallia G, Blakeley J, Lim M, Brem H, Quinones-Hinojosa A. Multiple resections for patients with glioblastoma: prolonging survival. *J Neurosurg.* 118(4): 812-20, 2013
54. Guarnieri M, Brayton C, Detolla L, Forbes-McBean N, Sarabia-Estrada R, **Zadnik P**. Safety and efficacy of buprenorphine for analgesia in laboratory mice and rats. *Lab Anim (NY).* 41(11):337-43, 2012
55. Groves M, **Zadnik P**, Recinos P, Renard V, Jallo G. Intramedullary spinal cord tumor resection. *Neurosurgical Focus.* 33(1). Pages 1-1, 2012 [Video Abstract]
56. Grossman R, Rudek MA, Brastianos H, **Zadnik P**, Brem H, Tyler B, Blakely JO. The impact of bevacizumab on temozolomide concentrations in intracranial U87 gliomas. *Cancer Chemother Pharmacol.* 70(1):129-39, 2012
57. Grossman R, Tyler B, Huang L, **Zadnik P**, Lal B, Javaherian K, Brem H. Improvement in the standard treatment for experimental glioma by fusing antibody Fc domain to endostatin. *J Neurosurg.* 115(6):1139-46, 2011

#### Editorials, Reviews, Chapters:

A tired neurosurgery resident, a harsh remark, the regret she can't forget. Patti Zadnik Sullivan, *The Philadelphia Inquirer* Feb 26, 2020.

Minimally invasive approaches to spine tumors in: Minimally Invasive Surgery. Editor Micheal Wang. Submitted to eds. March 2020.

Cranio cervical Tumors in: Spine and Spinal Cord Tumors - Advances in Classification, Management and Treatment. Thieme. Submitted to eds. Jan 2020

Thoracic and Lumbar Spine Anatomy in: Handbook of Spine Technology. Cheng, ed. Springer. Submitted Nov 2018.

- Spinal cord and spinal column. (Chapter 25) in: The Trauma manual: Trauma and Acute Surgery 5<sup>th</sup> Edition. Peltzman and Yealy, eds. Wolters Kluwer. Submitted Sept 2018.
- Robotic Anterior Lumbar Fusion in: Navigation and Robotics in Spine Surgery. Vaccaro, Panchmatia, Kaye, Prasad eds. Thieme . Submitted Jan 2018.
- Evacuation of intracerebral hemorrhages (Chapter 13) in: Kumar, Levine, Schuster, Kofke eds. Neurocritical care management of the neurosurgical patient: Elsevier, 2017.
- Orthopedic Polymers: Spinal Drug Delivery in: Mishra M, ed. Encyclopedia of Biomedical Polymers and Polymeric Biomaterials, CRC Press, 2015
- Neurosurgical evaluation of cervical spine trauma in: Papadakos PJ, Gestring M, eds. Encyclopedia of Trauma Care: Springer, 2015
- Tumors of the spine (Chapter 9) in: Khanna AJ, ed. MRI for Spine Surgeons and Specialists (2nd ed.). New York, Thieme, 2014
- Osteogenic and Ewing's Sarcoma (Chapter 10) in: Gokaslan Z, Boriani S, Fisher CC, eds. AOSpine Master Series Volume 2, Primary Tumors, Thieme, 2014
- Chordoma (Chapter 8) in: Gokaslan Z, Boriani S, Fisher CC, eds. AOSpine Master Series Volume 2, Primary Tumors, Thieme, 2014
- Region Specific Approaches (Chapter 5) in: Gokaslan Z, Boriani S, Fisher CC, eds. AOSpine Master Series Volume 1, Metastatic Tumors, Thieme, 2014.
- Anterolateral open thoracotomy approach for thoracic discectomy in Vaccaro A, Eck J, eds. Surgical Atlas of Spinal Operations: Jaypee. 2013. Pages 17-22.
- Radiotherapy and radiosurgery in the management of sacral tumors (Chapter 14) in: Kleinberg ed. Radiosurgery in CNS Disease: Demos Medical. 2013 Pages 213-220.
- Spinal Chordomas in: Berhouma M ed. Bone Tumors: Symptoms, Diagnosis, and Treatment. Nova Publishers 2012.
- Tumors of the Axial Spine in: Berhouma M ed. Bone Tumors: Symptoms, Diagnosis, and Treatment. Nova Publishers 2012.

### Presentations

- Social Determinants of Health and Spine Tumor Surgery Outcomes: A Nationwide Analysis of Disparities from 2002-2019. Oliver Tang, Jared Fridley, Patricia Sullivan, Ziya L Gokaslan. AANS 2023 Presented by Oliver Tang.
- Drivers of Adverse 30-Day Outcomes for Pediatric Spine Tumor Surgery Patients: A Nationwide Analysis. Oliver Tang, Jared Fridley, Patricia Sullivan, Ziya L Gokaslan. CNS 2022. Presented by Oliver Tang.
- March 7, 2020. Ahmed Albayar, Stephen Miranda, Patricia Zadnik Sullivan, Jang Yoon, Neil R. Malhotra, Zarina S. Ali, James M. Schuster, Ali K. Ozturk, Preoperative radiation is an independent predictor of time to death in metastatic spine patients. Oral Presentation, 2020 CNS Joint Section on Disorders of the Spine and Peripheral Nerves. *Presented by Ahmed Albayar*
- March 7, 2020. Ahmed Albayar, Patricia Zadnik Sullivan, Justin Burrell, Kevin Browne, John Arena, Victoria Johnson, Douglas Smith, D. Kacy Cullen, Ali K. Ozturk. Minimally invasive implantation of sensory micro-tissue engineered neural networks (micro-TENNs) to bridge the glial scar in spinal cord injury. Oral Presentation, 2020 CNS Joint Section on Disorders of the Spine and Peripheral Nerves. Oral Presentation, 2020 CNS Joint Section on Disorders of the Spine and Peripheral Nerves. *Presented by Ahmed Albayar*
- March 7, 2020. Ahmed Albayar, Ashwin Rammaya, Abigail Roche, Patricia Zadnik Sullivan, Jang Yoon, Comron Saifi, Zarina Ali, William Welch, Vincent Arlet, Ali K. Ozturk . Changes in Spinopelvic Parameters in the first three months following Corrective Surgery for Adult Spinal Deformity. Oral Presentation, 2020 CNS Joint Section on Disorders of the Spine and Peripheral Nerve. *Presented by Ahmed Albayar*
- December 6, 2019. Zadnik Sullivan P, Albayar A, Burrell J, Budlow J, Johnson V, Smith D, Cullen K, Ozturk A. Transplanted micro-tissue engineered neural networks (micro-TENNs) extend axons into host spinal cord in a rat model of spinal cord injury. Oral Presentation, Pan Philadelphia Annual Meeting. Philadelphia, PA, USA
- July 1, 2019. Zadnik Sullivan P, Albayar A, Burrell J, Budlow J, Johnson V, Smith D, Cullen K, Ozturk A. Transplanted micro-tissue engineered neural networks (micro-TENNs) extend axons into host spinal cord in a rat model of spinal cord injury. Poster Presentation Neurotrauma 2019 Annual Meeting, Pittsburgh, PA, USA.

March 17, 2019. Zadnik Sullivan P, Diem S, Hirsh S, Pessoa R, Joshi D, Ozturk A, Welch W, Ali ZS. Autocorrect: Using text messaging to improve Enhanced Recovery After Surgery (ERAS) behaviors for patients undergoing spine surgery. Oral Presentation, 2019 Joint Section on Disorders of the Spine and Peripheral Nerves.

March 17, 2019. Zadnik Sullivan P, Xu Z, Dolle JP, Hansel G, AlBayer A, Smith DH, Ozturk A. Dorsal root ganglion axons facilitate and guide the outgrowth of cortical neurons: *In vitro* modeling of spinal cord injury repair. Oral Presentation, 2019 Joint Section on Disorders of the Spine and Peripheral Nerves.

August 13, 2018. Zadnik Sullivan P, Blue R, Leonard J, Kung D, Chen HI, Schuster J. Increased risk of stroke in penetrating versus blunt injuries to the cervical spine. Poster presentation Neurotrauma 2018 Annual Meeting, Toronto, Canada.

July 21, 2018. Li C, Zadnik Sullivan P, Nasrallah M, Buch L, Chen HI, Lee JYK. Novel Application of Near-Infrared Indocyanine Green in Stereotactic Needle Biopsy of Suspected High-Grade Glioma. Pennsylvania Neurosurgical Society, Hershey, PA. Award for Best Abstract. December 1, 2017. Higher Preoperative SINS Score Predicts Earlier Mortality in Patients with Metastatic Spine Disease. Zadnik Sullivan P, Ramayya A, McShane B, Piazza M, Schuster J, Ozturk A. Oral presentation at the Pan-Philadelphia Conference, Philadelphia, PA.

September 27, 2016. Welch WC, Sullivan, P. Managing Spine Complications. Oral presentation at the Annual Meeting of the Congress of Neurological Surgeons, Course T20, San Diego, California.

April 26, 2013. Zadnik P, Karami K, Groves M, Witham TF, Bydon A, Gokaslan Z, Wolinsky JP, Sciubba D. Pre and postoperative pain medication use in patients undergoing surgery for multiple myeloma in the spine. AANS/CNS Section on Pain Biennial Meeting. New Orleans, LA.

March 6, 2013. Zadnik P, Groves M, Witham TF, Bydon A, Gokaslan Z, Wolinsky JP, Sciubba D. Cervical Spine Metastases from Breast and Prostate Cancer. Imperial Spine Annual Conference. London, UK.

March 6, 2013. Zadnik P, Sarabia-Estrada R, Groves M, Witham TF, Bydon A, Gokaslan Z, Wolinsky JP, Sciubba D. Real-time Optical Imaging Correlated with Functional Decline in an Animal Model of Spinal Metastases. Imperial Spine Annual Conference. London, UK.

February 16, 2013. Zadnik P, Molina C, Groves M, Sarabia-Estrada R, Wolinsky JP, Witham T, Bydon A, Gokaslan Z, Sciubba D. A novel model of human breast cancer metastasis to the spine using real-time bioluminescence imaging. Association for Collaborative Spine Research (ACSR) Annual Meeting. San Diego, CA.

February 16, 2013. Zadnik P, Kaloostian P, Karami K, Groves M, Wolinsky JP, Witham T, Bydon A, Gokaslan Z, Sciubba D. Larger tumor volumes predict higher mortality and increased local recurrence rates following surgical resection of sacral chordoma. Association for Collaborative Spine Research (ACSR) Annual Meeting. San Diego, CA.

October 24, 2012. Zadnik P, Molina CA, Groves ML, Sarabia-Estrada R, Wabler M, Mihalic J, McCarthy E, Ivkov R, Sciubba D. Nanoparticle Mediated Thermoablation in Tumors of the Spinal Column in a Rat Model of Metastatic Breast Cancer. NASS Annual Meeting. Dallas, TX.

March 10, 2012. Zadnik P, Sarabia-Estrada R, Groves M, Molina C, Sciubba D. Characterization of a Novel Metastatic Human Breast Adenocarcinoma Rat Model Using Intracardiac Injection and Bioluminescence. AANS/CNS Section on Disorders of the Peripheral Nerve and Spine, Annual Meeting. Orlando, FL.

### Abstracts

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