

## Scott L. Zuckerman, M.D. M.P.H.

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SCOTT.ZUCKERMAN@VANDERBILT.EDU

### EDUCATION

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#### Residency

2012 – Pres. Department of Neurosurgery, Vanderbilt University Medical Center, *Nashville, TN*

#### Additional Training

07-12/2015 Complex Spine, Vanderbilt University Medical Center, *Nashville, TN* (Joseph S. Cheng)

06-08/2016 Spinal Oncology, M.D. Anderson Cancer Center, *Houston, TX* (Laurence D. Rhines)

10-12/2016 Peripheral Nerve, Mayo Clinic, *Rochester, MN* (Robert J. Spinner)

#### Graduate

2015 – 2017 M.P.H., Harvard University T.H. Chan School of Public Health, *Boston, MA*

#### Medical School

2008 – 2012 M.D., Vanderbilt University School of Medicine, *Nashville, TN*

#### Undergraduate

2004 – 2008 B.S., Cornell University, Magna Cum Laude, *Ithaca, NY*

### HONORS & AWARDS

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#### Residency

2017 Charles Kuntz Scholar Award, *AANS Spine Section, Las Vegas, NV*

2016 ThinkFirst Injury Prevention Abstract Award, *Congress of Neurological Surgeons, San Diego, CA*

2016 Alpha Omega Alpha Medical Honor Society, *Vanderbilt Chapter, Nashville, TN*

2016 August McCravey Award, *67<sup>th</sup> Southern Neurosurgical Annual Meeting, San Antonio, TX*

2015 Depuy Synthes Award Research on Brain and Craniofacial Injury, *CNS, New Orleans, LA*

2015 Resident Teaching Award, *Vanderbilt Neurosurgery Residency, Nashville, TN*

2013 Elliot Newman Prize, 1<sup>st</sup> place Oral Presentation, *Vanderbilt Research Forum, Nashville, TN*

2013 Mayfield Clinical Science Award, *AANS/CNS Spine Section Meeting, Phoenix, AZ*

2013 August McCravey Award, *64<sup>th</sup> Southern Neurosurgical Annual Meeting, Sarasota, FL*

2012 CNS Ronald Tasker Award For Pain Research, *CNS National Meeting, Chicago, IL*

2012 August McCravey Award, *63<sup>rd</sup> Southern Neurosurgical Annual Meeting, Amelia Island, FL*

#### Medical School

2012 Vanderbilt School of Medicine Award of Distinction, *Nashville, TN*

2012 Vanderbilt School of Medicine Graduation Speaker, *Nashville, TN*

2012 VUSM Annual Student Dean's Lectureship Award, *Nashville, TN*

2012 VUSM Infectious Diseases Student Award for Excellence, *Nashville, TN*

2011 Vanderbilt University Research Forum, 2<sup>nd</sup> Place Clinical Oral Presentation, *Nashville, TN*

2010 Segal Americorps Education Award, *Nashville, TN*

Undergraduate

- 2008 Cornell University SUNY Chancellor's Award Nomination, *Ithaca, NY*
- 2008 Richard A. Church Senior Service Award Honorable Mention, *Ithaca, NY*
- 2008 Magna Cum Laude, Latin Honors, *Ithaca, NY*
- 2007 Ann S. and Robert R. Morley Student Research Award, *Ithaca, NY*
- 2007 Mortar Board Senior Honor Society, *Ithaca, NY*
- 2007 Order of Omega Greek Honor Society, *Ithaca, NY*
- 2006 Ho-Nun-De-Kah Academic Honor Society, *Ithaca, NY*
- 2006 Golden Key National Honor Society, *Ithaca, NY*

High School

- 2004 Westchester County Scholar Athlete Award, Varsity Basketball, *Scarsdale, NY*
- 2004 Casey Ferrone Leadership Award, Varsity Basketball, *Scarsdale, NY*
- 2003 Signifer National Honor Society, *Scarsdale, NY*

RESEARCH EXPERIENCE

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- 2011 – Pres.     **Vanderbilt Sports Concussion Center (V-SCoRe), Co-Director for Research**  
*Mentors:* Gary S. Solomon, PhD and Allen K. Sills, MD  
The Vanderbilt Sports Concussion Center is the only dedicated, multidisciplinary sports concussion clinic in Tennessee. Through collaboration among orthopedists, neuropsychologists, and neurosurgeons the center conducts research in multiple areas regarding concussion safety and improving head injury research.
  
- 2011 – Pres.     **Vanderbilt Spinal Column Surgical Quality and Outcomes Research**  
*Principal Investigators:* Clinton J. Devin, MD; previously Matthew J. McGirt, MD  
Research goals include identifying factors associated with in-patient morbidity and cost, evaluating the comparative effectiveness and cost-utility of various surgical treatments, and determining medical resource utilization, occupational and societal costs, and direct medical costs of various surgical and non-surgical spine treatments
  
- 2009 – 2014     **Quality Improvement Research**  
*Mentor:* J Mocco, MD MS; Daniel J. France, PhD, Tom R. Talbot, MD MPH  
Under the guidance of several mentors, conducted projects that addressed quality improvements in the operating room, including the effect of an electronic whiteboard on time-out compliance, how observer bias affects time-out compliance, risk factors for flash sterilization, and how the timeout is used in neurosurgery.
  
- 2008 – 2011     **Orthopaedic Trauma Research**  
*Mentor:* William T. Obremeskey, MD MPH  
Conducted research projects in the areas of scapula fractures, traumatic knee dislocations, and hyperglycemia as a risk factor for surgical-site infection in critically-ill orthopaedic trauma patients.
  
- 2008 – 2010     **Incarceration Community Research**  
*Mentor:* Jeff Blum, M. Div; Davidson County Sheriff's Department

Interviewed incarcerated fathers to identify how jail programming can improve the father-child relationship and rehabilitate inmates.

2006 – 2008      **Cornell University Food and Brand Lab**  
*Mentors:* Brian Wansink, PhD  
Studied the effect of environmental cues on food consumption.

## GRANT FUNDING

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2016-2017      **Vanderbilt Institute for Clinical and Translational Research Grant (\$5,000)**  
*Principal Investigators:* Gary S. Solomon, Scott L. Zuckerman  
*Project:* Genetic Predictors of Post-Concussion Syndrome: A Genome Wide Association Study

## INVITED LECTURES

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1. **“What are the consequences of subconcussion?”** 35<sup>th</sup> Annual National Neurotrauma Symposium; AANS/CNS Joint Section on Neurotrauma and Critical Care . July 9<sup>th</sup>, 2017. Snowbird, Utah.

## PEER REVIEWED PUBLICATIONS

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1. Rosenberg AD, Wambold D, Kraemer L, Begley-Keyes M, **Zuckerman SL**, Singh N, Cohen MM, Bennett MV. Ensuring Appropriate Timing of Antimicrobial Prophylaxis. *Journal of Bone and Joint Surgery*. 2008 Vol. 90(2): 226-232. PMID: 18245579.
2. **Zuckerman SL** & Wright DC. The Plight of Incarcerated Fathers: Learning How to Father Effectively Through Jail Programming. *American Jails Magazine*. July/August 2010.
3. Forbes JA, **Zuckerman SL**, Hanif R, Forbes C, Wushensky CA, Pearson MM. Evidence of tumor exit from the outlet foramina of fourth ventricle predicts ependymoma in pediatric patients with cerebellar/fourth ventricular tumors. *Journal of Surgical Radiology*. 2012, 3(1): 20-23.  
<http://issuu.com/surgisphere/docs/jsurgradvol3issue1>
4. **Zuckerman SL**, Song Y, Obremskey WT. Understanding the concept of medialization in scapula fractures. *Journal of Orthopaedic Trauma*. 2012. Jun;26(6):350-7. PMID: 21885996.
5. **Zuckerman SL**, Parikh R, Moore D, Talbot TR. Rationales for immediate use (flash) sterilization: A quality assurance assessment and risk factors for its use in knee and hip arthroplasties. *American Journal of Infection Control*. 2012. Nov;40(9):866-71. PMID: 22364918.
6. Richards JE, Kauffmann RM, **Zuckerman SL**, Obremskey WT, May AK. The Relationship of Stress-Induced Hyperglycemia and Surgical-Site Infection in Orthopaedic Surgery. *Journal of Bone and Joint Surgery*. 2012 Jul 3;94(13):1181-6. PMID: 22760385.
7. Shau DN, Parker SL, Mendenhall SK, **Zuckerman SL**, Devin C, McGirt MJ. Transforaminal lumbar interbody graft placement via an articulated delivery arm facilitates ventral and bilateral graft placement with increased segmental lordosis. *Journal of Spinal Disorders and Techniques*. 2015 May;28(4):140-6. PMID: 23059702.
8. Forbes JA, Rivas A, Tsai B, Ehtesham, M, **Zuckerman SL**, Wana G, Weaver KD. Microsurgical localization of the cochlea. *J Neurol Surg B Skull Base*. 2012 Dec;73(6):410-414. 2012. PMID: 24294559.
9. **Zuckerman SL**, Solomon GS, Forbes JA, Haase RF, Sills AK, Lovell MR. Response to Acute Concussive Injury in Soccer Players: Is Gender a Modifying Factor? *Journal of Neurosurgery: Pediatrics*. 2012 Dec;10(6):504-10. PMID: 23030348.

10. **Zuckerman SL**, France DJ, Green C, Leming-Lee S, Anders S, Mocco J. Surgical Debriefing: A Reliable Roadmap to Completing the Patient Safety Cycle. *Neurosurgical Focus*. 2012 Nov;33(5):E4. PMID: 23116099.
11. **Zuckerman SL**, Green C, Carr K, Dewan MC, Morone PJ, Mocco J. Neurosurgical Checklists: Literature Review. *Neurosurgical Focus*. 2012 Nov;33(5):E2. PMID: 23116097.
12. **Zuckerman SL**, Odom MJ, Lee YM, Solomon GS, Forbes JA, Sills AK. Recovery from Sports-Related Concussion: Days to Return to Baseline in Adolescents vs. Young Adults. *Surgical Neurology International*. Jan-Feb 2012, Vol 3(1):130. PMID: 23227435.
13. Forbes JA, Awad Ahmed, **Zuckerman SL**, Carr K, Sills AK, Cheng J. Association between translational acceleration, rotational acceleration and concussion in helmeted collisions: literature review. *Neurosurgical Focus*. 2012 Dec;33(6):E10. PMID: 23199422.
14. **Zuckerman SL**, Kuhn A, Dewan MC, Morone PJ, Forbes JA, Solomon GS, Sills AK. Structural Brain Injury in Sport-Related Concussion. *Neurosurgical Focus*. 2012 Dec;33(6):E6. PMID: 23199429.
15. **Zuckerman SL**, Mocco J. Use of Thin-Slice CT in Acute Ischemic Stroke. *World Neurosurgery*. 2013. Feb;79(2):213-6. PMID: 23266456.
16. Parker SL, Mendenhall SK, Shau DN, **Zuckerman SL**, Godil SS, Cheng JS, McGirt MJ. Minimally Invasive versus Open Transforaminal Lumbar Interbody Fusion (TLIF) for Degenerative Spondylolisthesis: Comparative Effectiveness and Cost-utility Analysis. *World Neurosurgery*. 2013. Jan 12. [Epub ahead of print]. PMID: 23321379
17. Godil SS, Parker SL, **Zuckerman SL**, Mendenhall SK, McGirt MJ. Accurately Measuring Outcomes After Surgery for Adult Chiari I Malformation: Determining the Most Valid and Responsive Instruments. *Neurosurgery*. 2013. May;72(5):820-7; discussion 827. PMID: 23381490.
18. Carr K, **Zuckerman SL**, Tomycz L, Pearson MP. Endoscopic removal of an intraventricular PNET Tumor: Retrieval of a free-floating fragment using urologic basket retrieval. *JNS Pediatrics*. 2013. Jul;12(1):25-9. PMID: 23621838.
19. **Zuckerman SL**, Poon SJ, Mainthia R, Hagan SL, Lockney TD, Zotov A, Holt GE, Bennett ML, Anders S, France DJ. Methodology and bias in assessing compliance with a surgical safety checklist. *Joint Commission Journal on Quality and Patient Safety*. 2013. Feb;39(2):77-82. PMID: 23427479.
20. Lee YM, Odom MJ, **Zuckerman SL**, Solomon GS, Sills AK. Does Age Affect Symptom Recovery After Sports Related Concussion? A Study of High School and Collegiate Athlete. *JNS Pediatrics*. 2013. Dec;12(6):537-44. PMID: 24063601.
21. **Zuckerman SL**, Odom MJ, Lee YM, Solomon GS, Sills AK. Baseline Neurocognitive Scores in Athletes with Attention Deficit Spectrum Disorders and/or Learning Disability. *JNS Pediatrics*. 2013. Aug;12(2):103-9. PMID: 23790088.
22. **Zuckerman SL**, Mocco J. Response: Neurosurgical Checklists: A Review. *Neurosurg Focus*. 2013. Apr;34(4):E11. PMID:23570493
23. Ladner TR, **Zuckerman SL**, Mocco JD. Genetics of Cerebral Vasospasm. *Neurology Research International*. 2013. Vol. 2013. PMID: 291895
24. Odom MK, **Zuckerman SL**, Mocco JD. The Role of Magnesium in the Management of Cerebral Vasospasm. *Neurology Research International*. 2013. May 21. [Epub ahead of print]. PMID: 943914.
25. Parker SL, Godil SS, **Zuckerman SL**, Mendenhall SK, Wells JA, Shau DN, McGirt MJ. Comprehensive assessment of 1-year outcomes and determination of minimum clinically important difference in pain, disability, and quality of life after suboccipital decompression for Chiari malformation I in adults. *Neurosurgery*. 2013 Oct; 73(4):569-81; discussion 581. PMID: 23787878.
26. Siuta M, **Zuckerman SL**, Mocco JD. Nitric Oxide in Cerebral Vasospasm: Theories, Measurement, and Treatment. *Neurology Research International*. 2013. June 25. [Epub ahead of print]. PMID: 23878735.
27. Parker SL, **Zuckerman SL**, Godil SS, Mendenhall SK, Tulipan N, McGirt MJ. Effect of Symptomatic Pseudomeningocele on Improvement in Pain, Disability, and Quality of Life following Suboccipital Decompression for Adult Chiari I Malformation. *Journal of Neurosurgery*. 2013. Oct;73(4):569-81; discussion 581. PMID: 23787878.
28. **Zuckerman SL**, Solomon GS, Sills AK. Response: Structural brain injury in sports-related concussion. *Neurosurg Focus*. 2013 May;34(5):E16. PMID: 23767075.

29. Godil SS, Parker SL, **Zuckerman SL**, Mendenhall SK, Devin CJ, Asher AL, McGirt MJ. Determining the quality and effectiveness of surgical spine care: patient satisfaction is not a valid proxy. *Spine Journal*. 2013. Sep;13(9):1006-12. PMID: 23685216.
30. Lee YM, **Zuckerman SL**, Mocco J. Current Controversies in the Prediction, Diagnosis, and Management of Cerebral Vasospasm: Where Do We Stand? *Neurology Research International*. 2013. Oct 8. [Epub ahead of print]. PMID: 24228177.
31. McClure, **Zuckerman SL**, Kutscher S, Gregory A, Solomon GS, Sills AK. Baseline Neurocognitive Testing in Sports-Related Concussion: The Importance of a Prior Night's Sleep. *Am J Sports Med*. 2014. Feb;42(2):472-8. PMID: 24256713.
32. Forbes JA, **Zuckerman SL**, Abila AA, Mocco J, Bode K, Eads T. Biomechanics of subdural hemorrhage in American football: review of the literature in response to rise in incidence. *Childs Nerv Syst*. 2014. Feb;30(2):197-203. PMID: 24240553.
33. **Zuckerman SL**, Apple RP, Odom MJ, Lee YM, Solomon GS, Sills AK. Effect of sex on symptoms and return to baseline in sports-related concussion. *JNS Pediatrics*. 2014. Jan;13(1):72-81. PMID: 24206343.
34. Forbes JA, **Zuckerman SL**, He L, McCalley E, Lee YM, Solomon GS, Halstead PD, Sills AK. Subdural Hemorrhage in Two High-School Football Players: Post-Injury Helmet Testing. *Pediatric Neurosurg*. 2013. 49(1):43-9. PMID: 24192427.
35. Godil SS, Parker SL, **Zuckerman SL**, Mendenhall SK, McGirt MJ. Accurately measuring the quality and effectiveness of cervical spine surgery in registry efforts: determining the most valid and responsive instruments. *Spine J*. 2013 Sep 26. [Epub ahead of print]. PMID: 24076442.
36. Carr KR, **Zuckerman SL**, Mocco J. Inflammation, Cerebral Vasospasm, and Evolving Theories of Delayed Cerebral Ischemia. *Neurol Res Int*. 2013. Aug 22. [Epub ahead of print]. PMID: 24058736.
37. **Zuckerman SL**, Solomon GS, Sills AK. Response: The challenge of matching across ages. *JNS Pediatrics*. 2013. 2013 Dec;12(6):536. PMID: 24436956.
38. **Zuckerman SL**, Seder DB, Tsujiara C, Cushing D, Gallup H, Mocco J, Hanel RA, Ecker RD. Aspirin allergy desensitization in cerebrovascular disease. A report of two cases, literature review and management guide for the neurointerventionalist. *Interventional Neuroradiology*. 2014. Feb; 20(1):5-11. PMID: 24556294.
39. **Zuckerman SL**, Eli IM, Morone PJ, Dewan MC, Mocco J. Novel technologies in the treatment of intracranial aneurysms. *Neurological Research*. 2014 Apr; 36(4):268-82. PMID: 24533618.
40. Parker SL, Godil SS, Mendenhall SK, **Zuckerman SL**, Shau D, McGirt MJ. Two-year comprehensive medical management of degenerative lumbar spine disease (lumbar spondylolisthesis, stenosis, or disc herniation): a value analysis of cost, pain, disability, and quality of life. Clinical article. *JNS: Spine*. 2014 Aug;21(2):143-9. PMID: 24785973.
41. Godil SS, Parker SL, **Zuckerman SL**, Mendenhall SK, Glassman D, McGirt MJ. Accurately Measuring the Quality and Effectiveness of Lumbar Surgery in Registry Efforts: Determining the Most Valid and Responsive Instruments. *Spine Journal*. 2014 April 24. PMID: 24768731.
42. Solomon GS, **Zuckerman SL**. Chronic Traumatic Encephalopathy in Professional Sports: Retrospective and Prospective Views. *Brain Injury*. 2015;29(2):164-70. Review. PMID: 25314314
43. **Zuckerman SL**, Forbes JA, Akshithkumar M, Krishnamoorthi H, Mathews L, Cheng J, McGirt MJ. Peri-operative management of blood pressure in patients with thoracic disc herniation: Case series and review of the literature. *European Spine Journal*. Accepted. 2014. June 5. PMID: 24898311.
44. Parker SL, Godil SS, Mendenhall SK, **Zuckerman SL**, Shau DN, McGirt MJ. Two-year comprehensive medical management of degenerative lumbar spine disease (lumbar spondylolisthesis, stenosis, or disc herniation): a value analysis of cost, pain, disability, and quality of life. *J Neurosurg Spine*. 2014. Aug;21(2):143-9. PMID: 24785973.
45. Tal A, **Zuckerman SL**, Wansink B. Watch What You Eat: Action-Related Television Content Increases Food Intake. *JAMA Intern Med*. 2014 Sep 1. [Epub ahead of print]. PMID: 25179157.
46. **Zuckerman SL**, Bhatia R, Tsujiara C, Baker CB, Szafran A, Cushing D, Aiken J, Tracy M, Mocco J, Ecker RD. Prospective series of two hours supine rest after 4Fr sheath based diagnostic cerebral angiography: Outcomes, Productivity and Cost. *Interventional Neuroradiology*. 2015 Feb;21(1):114-9. PMID: 25934785.

47. **Zuckerman SL**, Eli IM, Shah MN, Bradley N, Stutz CM, Park TS, Wellons JC. Radial to axillary nerve neurotization for brachial plexus injury in children: a combined case series. *Journal of Neurosurgery: Pediatrics*. 2014 Nov;14(5):518-26. PMID: 25192235.
48. Solomon GS, **Zuckerman SL**. Chronic traumatic encephalopathy in professional sports: retrospective and prospective views. *Brain Injury* 2015;29(2):164-70. PMID: 25314314.
49. Morgan CD, **Zuckerman SL**, Lee YM, King L, Beaird S, Sills AK, Solomon GS. Risk Factors for Post-Concussion Syndrome in an Exclusively Sport-Related Concussion Group: Case Control Study. Submitted to: *Journal of Neurosurgery: Pediatrics*. 2015. 2015 Jun;15(6):589-98. PMID: 25745959.
50. Morgan CD, Stephens M, **Zuckerman SL**, Waitara MS, Morone PJ, Dewan MC, Mocco J. Physiologic Imaging in Acute Stroke. *Interventional Neuroradiology*. Aug;21(4):499-510. PMID: 26063695.
51. **Zuckerman SL**, Morgan CD, Burks S, Forbes JA, Chambless LB, Solomon GS, Sills AK. Functional and Structural Traumatic Brain Injury in Equestrian Sports: A Review of the Literature. Submitted to: *World Neurosurgery*. 2015 Jun;83(6):1098-113. PMID: 25535066.
52. Parker SL, Godil SS, **Zuckerman SL**, Mendenhall SK, Devin CJ, McGirt MJ. Extent of pre-operative depression is associated with return to work after lumbar fusion for spondylolisthesis. *World Neurosurgery*. 2015 Apr;83(4):608-13. PMID: 25527877.
53. **Zuckerman SL**, Lee YM, Odom MJ, Forbes JA, Solomon GS, Sills AK. Sports-Related Concussion in Helmeted vs. Unhelmeted Athletes. Who Fares Worse? *Int J Sports Med*. 2015. 2015 May;36(5):419-25. PMID: 25664998.
54. Spiotta AM, Vargas J, **Zuckerman SL**, Mokin M, Ahmed A, Mocco J, Turner RD, Turk AS, Chaudri MI, Myers P. Acute stroke after carotid endarterectomy: time for a paradigm shift? Multicenter experience with emergent carotid artery stenting with or without intracranial tandem occlusion thrombectomy. *Neurosurgery*. 2015 Apr;76(4):403-10. PMID:25621982.
55. **Zuckerman SL**, Fargen KM, Mocco J. Neurosurgical Checklists: A Growing Need. *Neurosurg Clinics of North America*. 2015. Apr;26(2):219-229. PMID: 25771277.
56. Yengo-Kahn AM, Johnson DJ, **Zuckerman SL**, Solomon GS. Concussions in the National Football League: A Current Concepts Review. *American Journal of Sports Medicine*. 2016 Mar;44(3):801-11. PMID: 25899432.
57. **Zuckerman SL**, Mistry AM, Hanif R, Chambless LB, Neimat JS, Wellons JC 3<sup>rd</sup> Mocco J, Sills AK, McGirt MK, Thompson RC. Neurosurgery Elective for Preclinical Medical Students: Early Exposure and Changing Attitudes. *World Neurosurgery*. 2016 Feb;86:120-6. PMID: 26361323.
58. O'Lynnner TM, **Zuckerman SL**, Morone PJ, Dewan MC, Vasquez-Castellanos RA, Cheng JS. Trends for Spine Surgery for the Elderly: Implications for Access to Healthcare in North America. *Neurosurgery*. 2015;77 Suppl 4:S136-41. PMID: 26378351.
59. Morgan CD, **Zuckerman SL**, King LE, Beaird SE, Sills AK, Solomon GS. Post-concussion syndrome (PCS) in a youth population: Defining the diagnostic value and cost-utility of brain imaging. *Child Nerv Syst*. 2015 Dec;31(12):2305-9. PMID: 26419243.
60. **Zuckerman SL**, Sivaganesan A, Zhang Chi, Dewan MC, Morone PJ, Kumar NG, Mocco J. Maximizing Efficiency and Diagnostic Accuracy Triage of Acute Stroke Patients: A Case-Control Study. *Interventional Neuroradiology*. 2016 Jun;22(3):304-9. PMID: 26842606.
61. **Zuckerman SL**, Kerr ZY, Yengo-Kahn A, Wasserman AB, Covassin T, & Solomon GS. Epidemiology of Sports-Related Concussion in NCAA Athletes from 2009/10 to 2013/14: Incidence, Recurrence, and Mechanisms. *American Journal of Sports Medicine*. 2015 Nov;43(11):2654-62. PMID: 26330572.
62. Wasserman EB, Kerry ZY, **Zuckerman SL**, Covassin T. Epidemiology of Sports-Related Concussions in National Collegiate Athletic Association Athletes from 2009-2010 to 2013-2014: Symptom Prevalence, Symptom Resolution Time, and Return-to-Play Time. *American Journal of Sports Medicine*. 2015. 2016 Jan;44(1):226-33. PMID: 26546304.
63. Solomon GS, Kuhn AW, **Zuckerman SL**. Depression as a Modifying Factor in Sports-Related Concussion: A Critical Review of the Literature. *Physician and Sports Medicine*. 2016;44(1):14-9. PMID: 26567843.
64. Hoh BL, Gong Y, McDonough CW, Waters MF, Royster AJ, Sheehan TO, Burkley B, , Michael F. Waters, Langae TY, Mocco J, **Zuckerman SL**, Mummareddy N, Stephens ML, Ingram C, Shaffer CM, Denny JC,

- Brilliant MH, Kitchner TE, Linneman JG, Roden DM, Johnson JA CYP2C19 and CES1 polymorphisms and efficacy of clopidogrel and aspirin dual antiplatelet therapy in patients with symptomatic intracranial atherosclerotic disease. *Journal of Neurosurgery*. 2016 Jun;124(6):1746-51. PMID: 26587656.
65. Dewan MC, Morone PJ, **Zuckerman SL**, Mummareddy N, Ghiassi M, Ghiassi M. Paradoxical ischemia in bilateral Eagle syndrome: a case of false-localization from carotid compression. *Clin Neurol Neurosurg*. 2015 Dec 17;141:30-32. PMID: 26724428.
66. White-Dzuro GA, Maynard K, **Zuckerman SL**, Weaver KD, Russell PT, Clavenna MJ, Chambless LB. Risk of post-operative pneumocephalus in patients with obstructive sleep apnea undergoing transsphenoidal surgery. *Journal of Clinical Neuroscience*. 2016 Jul;29:25-8. PMID: 26916903.
67. **Zuckerman SL**, Allen LA, Broome C, Bradley N, Law C, Shannon C, Wellons JC. Functional outcomes of infants with Narakas Grade 1 birth-related brachial plexus palsy undergoing neurotization compared with infants who did not require surgery. *Child's Nervous System*. 2016 May;32(5):791-800. PMID: 26906477.
68. Solomon GS, Kuhn AW, **Zuckerman SL**, Casson IR, Viano DC, Lovell MR, Sills AK. Participation in Pre-High School Football and Neurological, Neuroradiological, and Neuropsychological Findings in Later Life: A Study of 45 Retired National Football League Players. *Am J Sports Med*. 2016 May;44(5):1106-15. PMID: 26888877.
69. Akinpelu BJ, **Zuckerman SL**, Gannon SR, Westrick A, Shannon C, Naftel RP. Pediatric isolated thoracic and/or lumbar transverse and spinous process fractures. *J Neurosurg Pediatrics*. 2016 Jun;17(6):639-44. PMID: 26894517.
70. **Zuckerman SL**, Prather CT, Yengo-Kahn AM, Solomon GS, Sills AK, Bonfield CM. Sport-related structural brain injury associated with arachnoid cysts: a systematic review and quantitative analysis. *Neurosurgical Focus*. 2016. Apr;40(4):E9. PMID: 27032926.
71. **Zuckerman SL**, Yengo-Kahn AM, Buckley TA, Solomon GS, Sills AK, Kerr ZY. Predictors of Post-Concussion Syndrome in Collegiate Student-Athletes *Neurosurgical Focus*. 2016 Apr;40(4):E13. PMID: 27032916.
72. Yengo-Kahn AM, Hale A, Zalnaraitis BH, **Zuckerman SL**, Solomon GS. Sideline Concussion Assessment Tool: A Systematic Review *Neurosurgical Focus*. 2016 Apr;40(4):E6. PMID: 27032923.
73. Green J, **Zuckerman SL**, Dalton SL, Djoko A, Folger D, & Kerr ZY. A six-year surveillance study of "Stingers" in NCAA Football. *Research in Sports Medicine: An International Journal*. 2017 Jan-Mar; 25(1):26-36. PMID: 27873542.
74. Odom, MJ, Lee, YM, **Zuckerman, SL**, Apple, RP, Germanos, T, Solomon, GS, & Sills, AK. 2015. Balance assessment in sports-related concussion: Evaluating the test-retest reliability of the Equilibrate System. *Journal of Surgical Orthopedic Advances*. *J Surg Orthop Adv*. 2016 Summer;2 5(2):93-8. PMID: 27518293.
75. Kerr ZY, **Zuckerman SL**, Wasserman EB, Covassin T, Djoko A, Dompier TP. Concussion symptomatology, symptom resolution time, and return to play time in youth, high school, and college American football athletes. *JAMA: Pediatrics*. Jul 1;170(7):647-53.PMID: 27135397.
76. Ganesh Kumar N, **Zuckerman SL**, Khan IS, Dewan MC, Morone PJ, Mocco J. Treatment of intracerebral hemorrhage: a selective review and future directions. *J Neurosurg Sci*. 2017. Oct;6(15):523-535. PMID: 26989905.
77. **Zuckerman SL**, Chotai S, Devin CJ, Parker SL, Stonko Dp, Wick JB, Hale AT, McGirt MJ, Cheng JS. Surgical resection of intradural extramedullary spinal tumors: patient reported outcomes and minimum clinically important difference. *Spine*. 2016 Apr 20. Epub ahead of print. PMID: 27111764.
78. Kerr ZY, **Zuckerman SL**, Wasserman EB, Covassin T, Djoko A, Dompier TP. Concussion symptomatology, symptom resolution time, and return to play time in youth, high school, and college American football athletes. *Journal of American Medical Association: Pediatrics*. 2016 May 2. PMI: 27135397.
79. Kuhn AW, **Zuckerman SL**, Totten D, Solomon GS. Performance and style of play after returning from concussion in the National Hockey League. *Am J Sports Med*. 2016 Aug; 44(8): 2152-7. PMID: 27159319.
80. Zusman EE, Zopfi P, Kuluva J, **Zuckerman SL**. Can ideas from United States youth sports reduce judo-related head injuries in Japan? *World Neurosurg*. 2016 Jun 8. PMID: 27288583.

81. Yengo-Kahn AM, **Zuckerman SL**, Stotts J, Zalneraitis BH, Gardner RM, Kerr ZY, Solomon GS. Performance following a first professional concussion among National Basketball Association Players. *Phys Sportsmed*. 2016 June 13. PMID: 27294806
82. **Zuckerman SL**, Wegner AM, Roos KG, Djoko A, Domipier TP, Kerr ZY. Injuries sustained in National Collegiate Athletic Association men's and women's basketball, 2009/2010-2014/2015. *Br J Sports Med*. 2016. Jun 30. Epub ahead of print. PMID: 27364907.
83. **Zuckerman SL**, Totten DJ, Rubel KE, Kuhn AW, Yengo-Kahn AM, Solomon GS. Mechanisms of injury as a diagnostic predictor of sport-related concussion severity in football, basketball, and soccer: Results from a regional concussion registry. *Neurosurgery*. 2016 Aug 1;63(CN suppl 1):102-112. PMID: 28175509.
84. Lee YM, **Zuckerman SL**, Sills AK, Solomon GS. Obesity and neurocognitive recovery after sports-related concussion in athletes: A matched cohort study. *The Physician and Sportsmedicine*. 2016. Aug 8:1-6. Epub ahead of print. PMID: 27456455.
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87. Ganesh Kumar N, Ladner TR, **Zuckerman SL**, Baker CB, Skaletsky M, Cushing D, Sanborn MR, Mocco J, Ecker D. Parent vessel occlusion for treatment of cerebral aneurysms: is there still an indication? A series of 17 patients. *J Neurol Sci*. 2017 Jan 15;372:250-255. PMID: 28017223.
88. Kuhn AW, Yengo-Kahn AM, Kerr ZY, **Zuckerman SL**. Sports concussion research, chronic traumatic encephalopathy and the media: repairing the disconnect. *Br J Sports Med*. 2016. Sep 1. Epub ahead of print. PMID: 27587800.
89. **Zuckerman SL**, Laufer I, Sahgal A, Yamada YJ, Schmidt MH, Chou D, Shin JH, Kumar N, Sciubba DM. When Less Is More: The Indications for MIS Techniques and Separation Surgery in Metastatic Spine Disease. 2016 Oct 15;41 Suppl 20:S224-S230. PMID: 27753784.
90. **Zuckerman SL**, Spinner RJ. Pigmented skin lesions, dermatomal maps, and clinical anatomists. *Clinical Anatomy*. 2017 Jan 3. [Epub ahead of print]. PMID: 28044373.
91. **Zuckerman SL**, Magarik JA, Espaillat KB, Kumar NG, Bhatia R, Dewan MC, Morone PJ, Hermann LD, O'Duffy AE, Riebau DA, Kirshner HS, Mocco J. Implementation of an institution-wide acute stroke algorithm: Improving stroke quality metrics. *Surg Neurol Int*. 2016. Dec 21;7(Suppl 41):S1041-S1048. PMID: 28144480.
92. **Zuckerman SL**, Spinner RJ. Understanding the dynamics and compartments in joint-related ganglion cysts. *J Foot Ankle Surg*. 2017 Mar-Apr; 56(2):415-416. PMID: 28231972
93. **Zuckerman SL**, Mistry A, Dewan MC, Morone PJ, Sills AK, Wellons JC 3rd, Thompson RC. In Reply to: Medical Student Recruitment into Neurosurgery: Maximizing the Pool of Talent. *World Neurosurgery*. 2017. Feb;98: 860. PMID: 28235352.
94. **Zuckerman SL**, Zalneraitis BH, Totten DJ, Rubel KE, Kuhn AW, Yengo-Kahn AM, Bonfield Cm, Sills AK, Solomon GS. Socioeconomic status and outcomes after sport-related concussion: a preliminary investigation. *Journal of Neurosurgery: Pediatrics*. 2017. Mar 24:1-10. PMID: 28338445.
95. Kerr ZY, **Zuckerman SL**, Register-Mihalik JK, Wasserman EB, McLeod TCV, Dompier TP, Comstock RD, Marshall SW. Estimating concussion incidence using sports injury surveillance systems: Complexities and potential pitfalls. *Neurologic Clinics*. In press. PMID: pending.
96. Dewan MC, Morone PJ, **Zuckerman SL**, Chambless LB. The Influence of Perioperative Seizure Prophylaxis on Seizure Rate and Hospital Quality Metrics Following Glioma Resection. *Neurosurgery*. 2017 Apr 1;80(4):563-570. PMID: 28362915.
97. **Zuckerman SL**, Kreines F, Powers A, Iorgulescu JB, Elder JB, Bilsky MH, Laufer I. Stabilization of tumor-associated craniovertebral junction instability: indications, operative variables, and outcomes. *Neurosurgery*. 2017. Mar 28. [Epub ahead of print]. PMID: 28368478.



98. **Zuckerman SL**, Morone PJ, Dewan MC. Letter: Implications of duty hour regulations from the neurosurgery resident perspective: Eliminate “Post-call” from your vocabulary. *Neurosurgery*. 2017. Apr 10. PMID: 28402556.
99. Chotai S, **Zuckerman SL**, Parker SL, Wick JB, Stonko DP, Hale AT, McGirt MJ, Cheng JS, Devin CJ. Healthcare resource utilization and patient-reported outcomes following elective surgery for intradural extramedullary spinal tumors. *Neurosurgery*. 2017 May 10. [Epub ahead of print]. PMID: 28498938.
100. Lakomkin N, Mistry AM, **Zuckerman SL**, Ladner T, Kothari P, Lee NJ, Stannard B, Vasquez RA, Cheng JS. Utility of intraoperative monitoring in the resection of spinal cord tumors: An analysis by tumor location and anatomical region. *Spine*. 2017. June 27. [Epub ahead of print]. PMID: 28658041.
101. Kerr ZY, **Zuckerman SL**, Register-Mihalik JK, Wasserman EB, Valovich McLeod TC, Dompier TP, Comstock RD, Marshall SQ. Estimating concussion incidence using sports injury surveillance systems: complexities and potential pitfalls. *Neurol Clin*. 2017. Aug;35(3):409-434. PMID: 28673407.
102. Maldonado AA, **Zuckerman SL**, Howe BM, Mauermann ML, Spinner RJ. “Isolated long thoracic nerve palsy”: More than meets the eye. *J Plast Reconstr Aesthet Surg*. 2017 June 27. S1748-6815(17)30266-8. [Epub ahead of print]. PMID: 28716694.
103. Yengo-Kahn AM, Gardner RM, Kuhn AW, Solomon GS, Bonfield CM, **Zuckerman SL**. Sport-related structural brain injury: Three cases of subdural hemorrhage in American high school football. *World Neurosurgery*. 2017. July 20. S1878-8750(17)31172-5. PMID: 28736353.

#### NATIONAL & REGIONAL PODIUM PRESENTATIONS \*presenting author underlined

1. **Zuckerman SL**, Poon SJ, et al. Surgical Team Compliance with the Pre-Procedural Time Out: Evaluating Bias and Utility of the “Secret Shopping” Method.  
– *VUMC Annual Research Forum, Nashville, TN, April 2011.*
2. Edwards JE, Kauffmann RM, **Zuckerman SL**, Obremskey WT, May AK. The Relationship of Stress-Induced Hyperglycemia and Surgical-Site Infection in Orthopaedic Trauma Surgery.  
– *Tennessee Chapter American College of Surgeons, Memphis, TN, July 2011.*
3. Forbes JA, **Zuckerman SL**, Athavale S, Netterville JL, Thompson RC. Transzygomatic extended middle fossa approach used for resection of tumor involving upper, middle, and lower clivus.  
– *International Neuro-Oncology Update, Nashville, TN, September 2011.*
4. Parker SL, **Zuckerman SL**, Shau D, Mendenhall S, Cheng J, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of trans-foraminal lumbar interbody fusion (TLIF) vs. comprehensive medical management for lumbar spondylolisthesis.  
– *AANS/CNS Spine and Peripheral Nerve Meeting, Orlando, FL, March 2012.*  
– *North American Spine Society Meeting, Dallas, TX, October 2012.*  
– *Southern Neurosurgical Society Annual Meeting, Amelia Isl, FL, March 2012. August McCravy Award Winner.*
5. Parker SL, **Zuckerman SL**, Shau D, Mendenhall S, Cheng J, Devin C, McGirt MJ. Cost-utility and comparative effectiveness analyses of laminectomy vs. comprehensive medical management for lumbar stenosis.  
– *AANS/CNS Spine and Peripheral Nerve Meeting, Orlando, FL, March 2012.*  
– *AANS National Meeting, Miami, FL, April 2012.*
6. Parker SL, **Zuckerman SL**, Shau DN, Mendenhall SK, McGirt MJ. Comprehensive assessment of one-year outcomes after suboccipital craniectomy for Chiari I malformation in adults.  
– *AANS/CNS Spine and Peripheral Nerve Meeting, Orlando, FL, March 2012.*  
– *Southern Neurosurgical Society Annual Meeting, Amelia Island, FL, March 2013.*

7. **Zuckerman SL, Lee YM, Odom MJ, Solomon GS, Forbes JA, Sills AK.** Sport-Related Concussion and Age: Number of Days to Neurocognitive Baseline.
  - *Congress of Neurological Surgeons Meeting, Chicago, IL, October 2012.*
  - *Southern Neurosurgical Society Meeting, Sarasota, FL, February 2013.*
  - *VUMC Annual Research Forum, Nashville, TN, April 2013.*
8. **Parker SL, Zuckerman SL, Shau DN, Mendenhall SK, Godil SS, McGirt MJ.** Accurately Measuring Outcomes After Surgery for Adult Chiari I Malformation: Determining the Most Valid and Responsive Instruments.
  - *CNS Meeting, Chicago, IL, October 2012. Ronald Tasker Award.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
  - *North American Spine Society Meeting, Dallas, TX, October 2012.*
  - *Cervical Spine Research Society Meeting, Chicago, IL, December 2012.*
9. **Parker SL, Godil SS, Zuckerman SL, Shau DN, Mendenhall SL, Cheng J, Devin C, McGirt MJ** Comprehensive Medical Management of Lumbar Stenosis and Spondylolisthesis is not Effective in Real-world Care: A Value Analysis of Cost, Pain, Disability and Quality of Life.
  - *Congress of Neurological Surgeons National Meeting, Chicago, IL, October 2012.*
10. **Godil SS, Parker SL, Zuckerman SL, Mendenhall SK, McGirt MJ.** Determining The Quality and Effectiveness of Spine Surgery: Is Patient Satisfaction a Valid Proxy?
  - *Congress of Neurological Surgeons National Meeting, Chicago, IL, October 2012.*
  - *Cervical Spine Research Society (CSRS) Meeting, Chicago, IL, December 2012.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
11. **Parker SL, Godil SS, Zuckerman SL, Mendenhall S, Shau D, McGirt MJ.** Accurately Measuring the Quality and Effectiveness of Lumbar Surgery in Registry Efforts: Determining the most Valid and Responsive Instruments.
  - *North American Spine Society Meeting, Dallas, TX, October 2012.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
12. **Zuckerman SL, Parker SL, Godil SS, Wong CH, McGirt MJ.** Defining the relative utility of lumbar spine surgery: A systematic literature review of common surgical procedures and their impact on health states.
  - *North American Spine Society Meeting, Dallas, TX, Oct 2012.*
13. **Parker SL, Mendenhall S, Shau D, Zuckerman SL, McGirt MJ.** Minimally Invasive versus Open Transforaminal Lumbar Interbody Fusion (TLIF) for Degenerative Spondylolisthesis: Comparative Effectiveness and Cost-utility Analysis.
  - *Southern Neurosurgical Society Annual Meeting, Amelia Island, FL, March 2012.*
  - *North American Spine Society Meeting, Dallas, TX, October 2012.*
14. **Parker SL, Godil SS, Zuckerman SL, Shau D, Mendenhall S, Cheng JS, McGirt MJ.** Cost-utility and comparative effectiveness analyses of laminectomy versus comprehensive medical management for lumbar stenosis.
  - *North American Spine Society Meeting, Dallas, TX, October 2012.*
15. **Godil SS, Parker SL, Zuckerman SL, Shau D, Mendenhall S, Cheng JS, McGirt MJ.** Accurately Measuring the Quality and Effectiveness of Cervical Spine Surgery in Registry Efforts: Determining the most Valid and Responsive Instruments.
  - *North American Spine Society Meeting, Dallas, TX, October 2012.*
16. **Zuckerman SL, Lee YM, Odom MJ, Solomon GS, Sills AK.** Establishing ImpACT Norms for the Learning Disabled Following Sports-Related Concussion: A Neglected Population.
  - *AANS/CNS Pediatric Section Meeting, St. Louis, MO, November 2012.*
  - *Southern Neurosurgical Society Meeting, Sarasota, FL, February 2013.*
17. **Zuckerman SL, Solomon GS, Sills AK.** Response to Acute Concussive Injury in Soccer Players: Is Gender a Modifying Factor?
  - *Southern Neurosurgical Society Meeting, Sarasota, FL, February 2013.*

18. **Zuckerman SL**, Godil SS, **Parker SL**, Aaronson OA, Devin CJ, McGirt MJ. Comparative Effectiveness, Cost Utility and Cost Benefit Analysis of Intra-Operative Neuromonitoring in Cervical Spine Surgery: Where is the Value?
  - *Cervical Spine Research Society Meeting, Chicago, IL, December 2012.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
19. **Parker SL**, Godil SS, **Zuckerman SL**, Shau D, Mendenhall S, Cheng JS, McGirt MJ. Comprehensive medical management of lumbar disc herniation, stenosis and spondylolisthesis is not effective in real-world care: A value analysis of cost, pain, disability, and quality of life.
  - *Southern Neurosurgical Society Meeting, Sarasota, FL, February 2013.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
20. **Godil SS**, **Zuckerman SL**, Parker SL, Aaronson O, Devin CJ, McGirt MJ. Comparative Effectiveness, Cost Utility and Cost Benefit Analysis of Intra-Operative Neuromonitoring in Lumbar Spine Surgery: Where is the Value?
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
21. **Mendenhall S**, Parker SL, Shau D, **Zuckerman SL**, Godil SS, McGirt MJ. Extent of Pre-operative Depression is associated with Return to Work after Lumbar Fusion for Spondylolisthesis.
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
22. **Parker SL**, Godil SS, **Zuckerman SL**, Shau D, Mendenhall S, Cheng JS. Clinical Outcomes and Cost Utility of Adult Spinal Deformity Surgery in Real-World Care.
  - *Southern Neurosurgical Society Meeting, Sarasota, FL, February 2013.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
23. **Dewan MC**, Godil SS, Parker SL, Mendenhall S, Shau D, **Zuckerman SL**, **Devin CJ**, McGirt MJ. Comparative Effectiveness and Cost-Benefit Analysis of Topical Vancomycin Powder in Posterior Spinal Fusion for Spine Trauma and Degenerative Spine Disease.
  - *Southern Neurosurgical Society Meeting, Sarasota, FL, February 2013.*
  - *AANS/CNS Spine Section Annual Meeting, Phoenix, AZ, March 2013.*
  - *Int'l Meeting on Advanced Spine Techniques, Vancouver, Canada, July 2013.*
  - *North American Spine Society Meeting, New Orleans, LA, Oct 2013.*
24. McClure DJ, **Zuckerman SL**, Kutscher S, **Gregory A**, Solomn GS. Baseline Neurocognitive Test Results In Non-concussed Athletes: Does Sleep Matter?
  - *American Orthopedic Society for Sports Medicine, Chicago, IL, July 2013.*
25. **Godil SS**, Parker SL, Mendenhall SK, **Zuckerman SL**, Shau DN, McGirt MJ. Cost-Utility and Comparative Effectiveness Analyses of Surgery versus Comprehensive Medical Management for Lumbar Spondylosis in Elderly.
  - *Int'l Meeting on Advanced Spine Techniques, Vancouver, Canada, July 2013.*
  - *North American Spine Society Meeting, New Orleans, LA, 2013.*
26. **Zuckerman SL**, Godil SS, Devin CJ, McGirt MJ. A Novel 6-Item Outcome Instrument (VBI-6) for Assessing the Effectiveness of Lumbar Surgery in Registry Efforts.
  - *Int'l Meeting on Advanced Spine Techniques, Vancouver, Canada, July 2013.*
27. **Godil SS**, **Zuckerman SL**, Devin CJ, McGirt MJ. Disparities in patient population with different type of insurance: Does it affect outcomes.
  - *North American Spine Society Meeting, New Orleans, LA, Oct 2013.*
28. **Zuckerman SL**, **Godil SS**, McGirt MJ. Understanding the effect of surgical complication on the value of surgical spine care: Evolution of the healthcare value equation.
  - *North American Spine Society Meeting, New Orleans, LA, Oct 2013.*
29. **Zuckerman SL**, **Magarik JA**, Espailat KB, Bhatia K, Dewan MC, Morone PJ, Mocco J. Implementation of an Institutional-Wide Acute Stroke Algorithm: Improving Stroke Quality Metrics.
  - *AANS/CNS Vascular Section Meeting, San Diego, CA, Feb 2014.*
  - *Society for Neurointerventional Surgery, Colorado Springs, CO, July 2013.*

30. Morgan CD, **Zuckerman SL**, Lee YM, Solomon GS, Sills AK. Risk Factors for Post-Concussion Syndrome in an Exclusively Sport-Related Concussion Group: Case Control Study.  
 – *Congress of Neurological Surgeons Meeting, Boston, MA, October 2014.*
31. **White-Dzuro B**, Maynard K, **Zuckerman SL**, Clavenna M, Weaver KD, Russell P, Chambless LB. Transsphenoidal Pituitary Surgery, Sleep Apnea, and Pneumocephalus: Is There A Link?  
 – *North American Skull Base Society Meeting, Tampa Bay, FL, February 2015.*
32. **Zuckerman SL**, Wasserman E, Yengo-Kahn AM, Solomon GS, Kerr ZY. Descriptive Epidemiology, Mechanisms, and Symptom Resolution of Concussion Sustained by National Collegiate Athletic Association Student-Athletes, 2009/10-2013/14 Academic Years.  
 – *Congress of Neurological Surgeons, New Orleans, LA, October 2015.*
33. **Yengo-Kahn AM**, **Zuckerman SL**, Solomon GS. The Effect of Psychotropic Medications and Psychiatric Illness on the Baseline Neurocognitive Assessment of Young Athletes Using the ImPACT Test Battery: A Pilot Study.  
 – *Congress of Neurological Surgeons, New Orleans, LA, October 2015.*
34. **Zuckerman SL**, Prather CT, **Yengo-Kahn AM**, Solomon GS, Sills AK, Bonfield CM. Sport-related structural brain injury associated with arachnoid cysts: a systematic review and quantitative analysis.  
 – *Southern Neurosurgical Society, San Antonio, TX, March 2016*
35. **Zuckerman SL**, Yengo-Kahn AM, Buckley TA, Solomon GS, Sills AK, Kerr ZY. Predictors of Post-Concussion Syndrome in Collegiate Student-Athletes.  
 – *Southern Neurosurgical Society, San Antonio, TX, March 2016*
36. **Zuckerman SL**, Chotai S, Devin CJ, Parker SL, Stonko DS, Wick JB, Hale AT, McGirt MJ, Cheng JS. Surgical resection of intradural extramedullary spinal tumors: patient reported outcomes and minimum clinically important difference.  
 – *Southern Neurosurgical Society, San Antonio, TX, March 2016*  
 – *American Association of Neurosurgical Surgeons, Chicago, IL, May 2016*
37. Green J, **Zuckerman SL**, Dalton SL, Djoko A, Folger D, Cheng JS, Kerr ZY. Epidemiology of “Stingers” in NCAA Football, 2009/10-2014/15 academic years  
 – *AANS Spine Section, Orlando, FL, March 2016*
38. Solomon GS, Kuhn AW, **Zuckerman SL**, Casson IR, Viano DC, Lovell MR, Sills AK. Participation in – pre-high school football and neurological, neuroradiological, and neuropsychological findings later in life: a study of 45 retired NFL players.  
 – *American Association of Neurosurgical Surgeons, Chicago, IL, May 2016*
39. Kerr ZY, **Zuckerman SL**, Wasserman EB, Covassin T, Djoko A, Dompier TP. Concussion symptomatology and return to play in youth, high school, and college American football athletes.  
 – *American Association of Neurosurgical Surgeons, Chicago, IL, May 2016*
40. **Zuckerman SL**, Totten DJ, Rubel KE, Kuhn AW, Yengo-Kahn AM, Solomon GS. Mechanisms of injury as a diagnostic predictor of sport-related concussion severity in football, basketball, and soccer: Results from a regional concussion registry  
 – *Congress of Neurological Surgeons, San Diego, CA, September 2016.*
41. Kuhn AY, **Zuckerman SL**, Solomon GS, Casson IR. Interrelationships Among Neuroimaging Biomarkers, Neuropsychological Test Data, and Symptom Reporting in a cohort of Retired National Football League (NFL) Players.  
 – *Congress of Neurological Surgeons, San Diego, CA, September 2016.*
42. **Kerr ZY**, Wasserman EB, **Zuckerman SL**, Yengo-Kahn AM, Dompier TP. Factors associated with post-concussion syndrome in United States high school student-athletes.  
 – *5th International Consensus Conference on Concussion in Sport, Berlin, Germany, October 2016*
43. **Zuckerman SL**, Chang G, Walsh G, Mehran R, Everson RG, Lee SH, Rao G, Tatsui CE, Rhines LD. Outcomes of Surgery for Sacral Chordoma and Impact of Complications: A Report of 50 Consecutive Patients with Long-term Follow-up.  
 – *AANS Spine Section, Las Vegas, NV, March 2017*

44. Lakomkin N, Stannard B, **Zuckerman SL**, Girojanapa J, Camara-Quintana J, Kolb L, Montejó J, Cheng JS. Preoperative Risk Stratification in Spine Tumor Surgery - A Comparison of Three Assessment Scores  
– *AANS Spine Section, Las Vegas, NV, March 2017*
45. Lakomkin N, **Zuckerman SL**, Stannard B, Lader T, Girojanapa J, Kolb L, Montejó J, Sarkiss C, Cheng JS. "The Utility of Preoperative Laboratory Values in Patients Undergoing Craniotomy for Subdural Hematoma."  
– *AANS, Los Angeles, CA, April 2017*
46. Lakomkin N, **Zuckerman SL**, Ladner R, Girojanapa J, Kolb L, Montejó J, Sarkiss C, Stannard B, Cheng JS. Major Complications Following Microvascular Decompression: 6-Year Incidence and Predictive Risk Factors.  
– *AANS, Los Angeles, CA, April 2017*

## NATIONAL & REGIONAL POSTER PRESENTATIONS

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1. Rosenberg A, **Zuckerman SL**. Anabolic steroids and risk of anesthesia complications.  
– *American Society of Anesthesiologists National Meeting, Chicago, IL, October 2006.*
2. **Zuckerman, SL**, Wansink B, Payne C. Exploding Cars vs. Boring interviews: How television programming and food convenience affect food consumption.  
– *Experimental Biology Conference, San Diego, CA, April 2008.*
3. **Zuckerman SL**, Song, Y, Corr B, Obremskey WT. Medialization of the Glenoid in Scapula fractures: Does it occur?  
– *VUMC Annual Research Forum, Nashville, TN, April 2010.*
4. Obremskey WT, Richards JE, **Zuckerman SL**, Staples KS. Outcomes in Early Treatment of Traumatic Knee Dislocations.  
– *VUMC Annual Research Forum, Nashville, TN, April 2010.*
5. **Zuckerman SL**, Stovall J, Blum J. Fathering Behind Bars: Improving Communication Between Incarcerated Fathers and their Children.  
– *Vanderbilt School of Medicine Emphasis Research Forum, Nashville, TN, May 2010.*
6. **Zuckerman SL**, Parikh R, Moore DC, Talbot TR. Factors Associated with Flash Sterilization of Surgical Instruments in Total Knee and Hip Arthroplasty.  
– *VUMC Annual Research Forum, Nashville, TN, April 2011.*
7. Edwards JE, **Zuckerman SL**, Obremskey WT. The Value of Hemoglobin A1C and the Relationship to Post-operative Complications in Orthopaedic Trauma Surgery.  
– *VUMC Annual Research Forum, Nashville, TN, April 2011.*
8. Mainthia R, Lockney DT, Zotov A, **Zuckerman SL**, Poon SJ, Hagan S, France D. Implementation of an electronic **checklist** system in the operating room increases surgical team compliance with pre-incision safety practices.  
– *International Forum on Quality & Safety Healthcare, Amsterdam, Netherlands, April 2011.*
9. **Zuckerman SL**, Forbes JA, Sills AK, Thompson RC, Halstead D. Subdural Hemorrhage in Two High School Football Players: Are Helmets to Blame?  
– *VUMC Annual Research Forum, Nashville, TN, April 2012.*
10. **Zuckerman SL**, Solomon GS, Forbes JA, Haase RF, Sills AK, Lovell MR. Response to Acute Concussive Injury in Soccer Players: Is Gender a Modifying Factor?  
– *Congress of Neurological Surgeons (CNS) National Meeting, Chicago, IL, April 2012.*  
– *VUMC Annual Research Forum, Nashville, TN, April 2012.*  
– *AANS National Meeting, New Orleans, LA, April 2013.*

11. Parker SL, **Zuckerman SL**, Shau DN, Mendenhall S, McGirt MJ. Cost-utility and comparative effectiveness analyses of transforaminal lumbar interbody fusion (TLIF) versus comprehensive medical management for lumbar spondylolisthesis.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*
12. Godil SS, Parker SL, **Zuckerman SL**, Mendenhall SK, McGirt MJ. Determining the quality and effectiveness of spine surgery: Is patient satisfaction a valid proxy.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*
13. **Zuckerman SL**, Godil SS, Parker SL, Mendenhall SK, Shau DN, Adogwa O, McGirt MJ. Preoperative Zung depression scale predicts outcome and patient satisfaction after revision lumbar surgery.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*
14. **Zuckerman SL**, Parker SL, Godil SS, Shau DN, Mendenhall SK, McGirt MJ. Cost-utility and comparative effectiveness analyses of laminectomy versus comprehensive medical management for lumbar stenosis.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*
15. Parker SL, Mendenhall SK, Shau DN, **Zuckerman SL**, Cheng J, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolisthesis: Comparative effectiveness and cost-utility analysis.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*
16. Parker SL, Kilaru B, **Zuckerman SL**, Shau DN, Mendenhall SK, Godil SS, McGirt MJ. Comprehensive assessment of one-year outcomes after suboccipital craniectomy for Chiari I malformation in adults.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*
17. Carr K, **Zuckerman SL**, Tomycz L, Pearson MP. Endoscopic removal of an intraventricular PNET Tumor: Retrieval of a free-floating fragment using urologic basket retrieval.  
 – *AANS/CNS Section on Pediatric Neurological Surgery, St. Louis, MO, November 2012.*
18. **Zuckerman SL**, Odom MJ, Lee YM, Solomon GS, Forbes JA, Sills AK. Recovery from Sports-Related Concussion: Days to Return to Baseline in Adolescents vs. Young Adults.  
 – *AANS National Meeting, New Orleans, LA, April 2013.*  
 – *VUMC Annual Research Forum. Nashville, TN, April 2013.*
19. **Zuckerman SL**, Lee YM, Odom MJ, Solomon GS, Sills AK. Establishing ImpACT Norms for the Learning Disabilities Following Sports-Related Concussion: A Neglected Population.  
 – *AANS National Meeting, New Orleans, LA, April 2013.*  
 – *VUMC Annual Research Forum. Nashville, TN, April 2013.*
20. **Zuckerman SL**, Kuhn A, Dewan MC, Morone PJ, Forbes JA, Solomon GS, Sills AK. Structural Brain Injury in Sports-Related Concussion.  
 – *AANS National Meeting, New Orleans, LA, April 2013.*  
 – *VUMC Annual Research Forum. Nashville, TN, April 2013.*
21. **Zuckerman SL**, Odom MJ, Lee YM, Solomon GS, Sills AK. Does Age Affect Symptom Recovery After Sports Related Concussion? A Study of High School and Collegiate Athletes.  
 – *AANS National Meeting, New Orleans, LA, April 2013.*  
 – *VUMC Annual Research Forum. Nashville, TN, April 2013.*
22. **Zuckerman SL**, Odom MJ, Lee YM, Solomon GS, Sills AK. Gender and Sports-Related Concussion: Female Athletes Take Longer to Return to Symptom Baseline than Males.  
 – *VUMC Annual Research Forum. Nashville, TN, April 2012.*  
 – *AANS National Meeting, New Orleans, LA, April 2013.*
23. **Zuckerman SL**, France DJ, Green C, Leming-Lee S, Anders S, Mocco J. Surgical Debriefing: A Reliable Roadmap to Completing the Patient Safety Cycle.  
 – *AANS National Meeting, New Orleans, LA, April 2013.*
24. **Zuckerman SL**, Green C, Carr K, Dewan MC, Morone PJ, Mocco J. Neurosurgical Checklists: Literature Review.  
 – *AANS National Meeting, New Orleans, LA, April 2013.*

25. **Zuckerman SL**, Godil SS, McGirt MJ. Understanding the effect of surgical complication on the value of surgical spine care: Evolution of the healthcare value equation.  
 – *Int'l Meeting on Advanced Spine Techniques, Vancouver, Canada, July 2013.*
26. **Zuckerman SL**, Godil SS, McGirt MJ. Understanding the effect of surgical complication on the value of surgical spine care: Evolution of the healthcare value equation.  
 – *Congress of Neurological Surgeons, San Francisco, CA, October 2013.*
27. **Zuckerman SL**, Sivaganesan A, Zhang C, Morone PJ, Dewan MC, Mocco J. High Specificity Identification of Acute Large Vessel Stroke: Maximizing Cohort Selection for Potential Mechanical Thrombectomy.  
 – *Congress of Neurological Surgeons, Boston, MA, October 2014.*
28. Vargas J, **Zuckerman SL**, Chaudry I, Turner R, Turk A, Spiotta A. Emergent Carotid Artery Stenting with or without Intracranial Tandem Occlusion Lesions Following Carotid Endarterectomy.  
 – *Society for Neurointerventional Surgery. Colorado Springs, CO, July 2013.*
29. **Zuckerman SL**, Odom MJ, Lee YM, Solomon GS, Sills AK. Sports-Related Concussion in Helmeted vs. Non-Helmeted Athletes: Who Fares Worse?  
 – *VUMC Annual Research Forum. Nashville, TN, April 2013.*  
 – *Congress of Neurological Surgeons, Boston, MA, October 2014.*
30. **Zuckerman SL**, Magarik JA, Espaillet KB, Bhatia K, Dewan MC, Morone PJ, Mocco J. Implementation of an Institutional-Wide Acute Stroke Algorithm: Improving Stroke Quality Metrics.  
 – *Congress of Neurological Surgeons, Boston, MA, October 2014.*
31. Ladner TR, **Zuckerman SL**, He L, Mocco J, Ecker R. Multi-center experience with surgical and endovascular management of ruptured and unruptured posterior inferior cerebellar artery aneurysms.  
 – *AANS/CNS Vascular Section Meeting, Nashville, TN, Feb 2015.*
32. Ladner TR, **Zuckerman SL**, He L, Sanborn M, Mocco J, Ecker R. Parent Vessel Occlusion for Treatment of Cerebral Aneurysms: Is There Still an Indication? A Series of 14 Patients.  
 – *AANS National Meeting, Washington DC, May 2015.*
33. **Zuckerman SL**, Akshitkumar M, Hanif R, Neimat JS, Wellons JC, Mocco J, Sills AK, Mocco J, Thompson RC. Neurosurgery Elective for Preclinical Medical Students: Early Exposure and Changing Attitudes.  
 – *AANS National Meeting, Washington DC, May 2015.*
34. Morgan CD, **Zuckerman SL**, Beaird S, King L, Sills AK, Solomon GS. Post-Concussion Syndrome (PCS) in a Youth Population: Defining the Diagnostic Value and Cost-Utility of Imaging  
 – *AANS National Meeting, Washington DC, May 2015.*
35. Ladner TR, He L, Lakomkin N, Ordonez DE, Sellyn G, **Zuckerman SL**, Mocco J. Clinical and Cosmetic Results of the Modified Minipterional Craniotomy for Unruptured Aneurysm Clipping  
 – *Congress of Neurological Surgeons, New Orleans, LA, October 2015.*
36. Wasserman EB, **Zuckerman SL**, Kerr Z. Descriptive Epidemiology of Concussions Sustained by National Collegiate Athletic Association Student-Athletes, 2009/10-2013/14 Academic Years.  
 – *48th Annual UNC Chapel Hill School of Medicine Student Research Day, Chapel Hill, NC, November 2015*
37. **Zuckerman SL**, Gentry WS, Patel RD, Kuhn AW, Yengo-Kahn AM, Solomon GS. Player performance after returning from concussion in the national football league (NFL): a pilot study  
 – *American Association of Neurological Surgeons, Chicago IL, May 2016*
38. Cuculic D, Sosa I, Ferencic A, stemberga V, **Zuckerman SL**. Second-impact syndrome has some hypersensitivity traits suggesting need for reconsideration of hypersensitivity classification.  
 – *World Sports Medicine Congress, Ljubljana, Slovenia, 2016*
39. **Zuckerman SL**, Kuhn AW, Solomon GS, Cason IR, Viano DC. Interrelationships among neuroimaging and neurologic outcomes in a cohort of retired National Football League (NFL) Players.  
 – *5th International Consensus Conference on Concussion in Sport, Berlin, Germany, October 2016*
40. **Zuckerman SL**, Kuhn AW, Yengo-Kahn Am, Kerr ZY, Totten DJ, Solomon GS, Sills AK. Age and sport are associated with higher odds of playing through a concussion and delayed removal from play.  
 – *5th International Consensus Conference on Concussion in Sport, Berlin, Germany, October 2016*

41. **Zuckerman SL**, Kuhn AW, Yengo-Kahn AM, Zalneraitis BH, Totten DJ, Bonfield CM, Solomon GS, Sills AK. Outcomes after sport-related concussion: does socioeconomic status matter?  
 – 5th International Consensus Conference on Concussion in Sport, Berlin, Germany, October 2016

## TEXTBOOK CHAPTERS

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1. Ghiassi M, **Zuckerman SL**, Ghiassi M, Mocco J. Dr. Spetzler's Neurovascular Surgery. Second Edition. Robert F. Spetzler, M. Yashar S. Kalani and Peter Nakaji. Publication pending.
2. Dewan MC, **Zuckerman SL**, Morone PJ, Mocco J. Chapter 58: Penumbra Aspiration System. *Neurointerventional Techniques, Tricks of the Trade*. Edited by: Dr. F. Gonzales. Publication pending.
3. **Zuckerman SL**, Wellons JC. Neurosurgical Knowledge Update: Congenital Brachial Plexus Palsy. *Neurosurgery: Maintenance of Certification*. Edited by: Drs. Mark Krieger and Gerald Grant. Thieme Publishers: NY, NY.
4. Wong CH, **Zuckerman SL**, Morone PJ, Houseman C, Cheng JS. Spinal Cord Herniation and Spontaneous Cerebrospinal Fluid Leak. *Benzel's Spine Surgery: 4th Edition*.
5. Wong CH, **Zuckerman SL**, Houseman CM, Cheng JS. Concepts and Mechanics of Spinal Biomechanics. *Youmans/Winn Neurologic Surgery*. Chapter finished; publication pending.
6. **Zuckerman SL**, Morone PJ, Dewan MC, Lakomkin N, Cheng JS. Open Posterior Lumbar Approach: Foraminotomy, Hemilaminectomy, Microdiscectomy, and Laminectomy. *Atlas of Neurosurgical Techniques: Spine and Peripheral Nerves, 2nd Edition*. Richard G. Fessler and Laligam N. Sekhar. Chapter finished; publication pending.
7. Kerr ZY, **Zuckerman SL**, Register-Mihalik JK, Wasserman EB, McLeod TC, Dompier TP, Comstock RD, Marshall SW. Estimating concussion incidence using sports injury surveillance systems: Complexities and potential pitfalls. *Neurologic Clinics*. 2016. In progress.
8. **Zuckerman SL**, Yengo-Kahn AM, Kuhn AW, Kerr ZY. Athletic performance after sport-related concussion. *Concussions in Athletics: Assessment, Management and Emerging Issues*. Nova Publishers. In progress.
9. Laufer I, **Zuckerman SL**, Bilsky M. NOMS Decision Framework. *Metastatic Spine Disease*. Edited by Dr. Rex A. Marco. Springer. In progress.

## ORGANIZED NEUROSURGERY

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1. **CNS Fellowship Committee**. Resident Member. Jan 2015 – Dec 2016.
2. **Residency Program Reviews: Multimedia Presentation**. Senior Neurosurgical Society. 2012.
3. **Journal Reviewer**
  - a. New England Journal of Medicine
  - b. Journal of the American Medical Association: Pediatrics
  - c. Brain Injury
  - d. American Journal of Sports Medicine
  - e. British Journal of Sports Medicine
  - f. Journal of Neurotrauma
  - g. The Physician and Sports Medicine
  - h. Developmental Neuropsychology
  - i. Sports Biomechanics
  - j. British Journal of Neurosurgery
  - k. Applied Neuropsychology: Adult
  - l. Applied Neuropsychology: Child



- m. Concussion
  - n. Journal of Attention Disorders
  - o. Journal of Clinical and Experimental Neuropsychology
  - p. Journal of Neuropsychiatry and Clinical Neurosciences
  - q. Journal of Spine & Neurosurgery
  - r. Journal of Sports Sciences
  - s. Journal of Sports Medicine and Physical Fitness
  - t. Journal of Neurosurgical Sciences
  - u. Journal of NeuroInterventional Surgery
  - v. Sport & Exercise Medicine: BMJ Open
  - w. International Journal of Sports Physiology and Performance
4. Podcasts – Journal of Neurosurgery
- a. Response to Acute Concussive Injury in Soccer Players: Is Gender a Modifying Factor?
  - b. Does Age [Affect](#) Symptom Recovery After Sports Related Concussion? A Study of High School and Collegiate Athletes
  - c. Endoscopic removal of an intraventricular PNET Tumor: Retrieval of a free-floating fragment using urologic basket retriever
  - d. Baseline neurocognitive scores in athletes with attention deficit-spectrum disorders and/or learning disability. Clinical article
  - e. Gender and sports-related concussion: female athletes take longer to return to symptom baseline than males. Clinical article
  - f. Radial to axillary nerve neurotization for brachial plexus injury in children: a combined case series. Clinical article.

## LOCAL ORAL PRESENTATIONS

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1. **Zuckerman SL**, Mocco J. Emergency Department care of acute stroke patients. *Stroke Symposium*. July 17, 2012. Vanderbilt University Medical Center.
2. **Zuckerman SL**, Mocco J. New stroke interventions. *Stroke Symposium*. May 15, 2013. Vanderbilt University Medical Center.
3. **Zuckerman SL**, Solomon GS. Research update from Vanderbilt Sports Concussion Center. *VSCC CME*. May 15, 2013. Vanderbilt University Medical Center.
4. **Zuckerman SL**. Sports and Brain Surgery: The Growing Epidemic of Sport-Related Concussion. *Belmont University: Brain Awareness Week*. March 19<sup>th</sup>, 2015. Belmont University.
5. **Zuckerman SL**, Dewan MC, Morone PJ. Sub-intern educational presentations: cranial emergencies, spinal emergencies, and neuro-oncology. Fall 2015.

## HOBBIES

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Baseball, basketball, softball, golf, weightlifting, crossfit, and baseball history.