

ORAN S. AARONSON

Associate Professor of Neurological Surgery

Residency Program Director

Medical Director, Vanderbilt Spine Center

Department of Neurosurgery

T-4224 Medical Center North

Vanderbilt University Medical Center

Nashville, Tennessee 37232-2380

Office: (615) 322-1883

Fax: (615) 343-8104

E-mail: oran.aaronson@vanderbilt.edu

EDUCATION

| | | |
|-----------|---|---|
| 1989-1992 | B.S. | First Class Honors University of London, Kings College Department of Biomedical Sciences |
| 1992-1997 | M.B.,B.S. (M.D.) | University of London The Medical College of St. Bartholomew's Hospital & The Royal London Hospital |
| 1997-1998 | House Officer | Barts and The London Hospitals |
| 1998-1999 | General Surgery Intern | Department of Surgery Vanderbilt University Medical Center |
| 1999-2003 | Neurosurgery Resident | Department of Neurosurgery Vanderbilt University Medical Center |
| 2003-2004 | Neurosurgery Chief Resident | Department of Neurosurgery Vanderbilt University Medical Center |
| 2012-2013 | Master of Management in Health Care (M.M.H.C.) | Dean's Award for First in Class Owen Graduate School of Management Vanderbilt University |

MEDICAL LICENSURE

2004-Present State of Tennessee Medical License

BOARD CERTIFICATION

2007-Present Board Certified: American Board of Neurosurgery

ACADEMIC APPOINTMENTS

| | | |
|-----------------------|--|--|
| August 2004-May 2012 | Assistant Professor | Department of Neurosurgery Vanderbilt University Medical Center |
| May 2012-Present | Associate Professor | Department of Neurosurgery Vanderbilt University Medical Center |
| August 2004-Dec. 2010 | Associate Residency Program Director | Department of Neurosurgery Vanderbilt University Medical Center |
| December 2010-Present | Residency Program Director | Department of Neurosurgery Vanderbilt University Medical Center |
| August 2010-Present | Board Member of the Vanderbilt University Alumni Association. Meacham Society Representative | Vanderbilt University Medical Center |

HOSPITAL APPOINTMENTS

| | | |
|--------------------------|---|--|
| August 2004-Present | Attending Surgeon | Vanderbilt University Medical Center Nashville, Tennessee |
| August 2004-Present | Chief, Neurosurgery | Veterans Administration Hospital Nashville, Tennessee |
| August 2007-Present | Attending Surgeon | Williamson Medical Center Nashville, Tennessee |
| September 2011-Present | Attending Surgeon | Coolsprings Surgery Center Nashville, Tennessee |
| September 2013 – Present | Medical Director of the Vanderbilt Spine Center | Nashville, Tennessee |

PROFESSIONAL ORGANIZATION MEMBERSHIP

| | |
|--------------|---|
| 1999-Present | American Medical Association |
| 1999-Present | American Association of Neurological Surgeons |
| 1999-Present | Congress of Neurological Surgeons |
| 2004-Present | North American Spine Society |
| 2004-Present | Tennessee Neurosurgical Society |

PROFESSIONAL ACTIVITIES

| | |
|------|---|
| 2001 | Chair, House Staff Advisory Council Vanderbilt University Medical Center |
| 2001 | Tennessee Resident Representative American Medical Association |
| 2012 | Surgical Advisory Board for Veterans Administration System |

TEACHING ACTIVITIES

Resident Supervision and Mentorship:

| | |
|----------------------------|--------------------------|
| Karl Sillay, M.D. | July – December 2004 |
| Daniel Oberer, M.D. | January – June 2005 |
| Scott Simon, M.D. | July – December 2005 |
| David Sun, M.D., Ph.D. | January – June 2006 |
| Richard Lebow, M.D. | July – December 2006 |
| Prasad Reddy, M.D. | January – June 2007 |
| Adam Reig, M.D. | July – December 2007 |
| Lola Chambless, M.D. | January – June 2008 |
| Luke Tomycz, M.D. | July – December 2008 |
| Jonathan Forbes, M.D. | January – July 2009 |
| Mahan Ghiassi, M.D. | July – December 2009 |
| Mayshan Ghiassi, M.D. | January – June 2010 |
| Cyrus Wong, M.D. | July – December 2010 |
| Moneeb Ehtesham, M.D. | January – June 2011 |
| Brandon Davis, M.D., Ph.D. | July- December 2011 |
| Heather Kiefer, M.D. | January 2012 – June 2012 |
| Jason Agran, M.D., Ph.D. | July 2012-December 2012 |
| Tom O’Lynnger, M.D. | January 2013-June 2013 |
| Lucy He, M.D. | July 2013-Present |

Nurse Practitioner Supervision and mentorship:

| | |
|---------------------------|---------------------|
| Angela Hatchett, A.N.P. | July 2004 – Present |
| Susie Dengler, A.N.P. | July 2004 – Present |
| Christy Cherkesky, A.N.P. | July 2009 – Present |

2004-Present Responsible for the running of weekly resident/student “Journal Club” teaching conferences. This involves formulating the curriculum, moderating sessions and giving presentations.

2004-Present Assist in preparing residents and faculty for the American Board of Neurological Surgery (ABNS) Examinations.

2004- Present Proctor of cadaveric dissections.

2011- Faculty for Society of Neurological Surgeons (SNS) “Bootcamp”. All neurosurgery interns in the US attend this course to help them transition from medical school into residency.

2011 – Assisting the Congress of Neurological Surgeons (CNS) Simulation Committee introduce simulation into the curriculum for resident education and create a regional center for simulation at Vanderbilt.

COMMUNITY SERVICE

2010-Present Member of the *Coalition for the Canby Robinson Society*: Assist in identifying and soliciting funds from potential donors to Vanderbilt University Medical Center.

RESEARCH

1991-1994 Neural Growth and Regeneration

Department of Physiology, University of London

London, England

2001 Robot-Assisted In-Utero Endoscopic Repair of Myelomeningocele

Department of Neurosurgery

Vanderbilt University Medical Center

Nashville, Tennessee

2002 Microendoscopic Discectomy

Percutaneous Placement of Pedicle Screws

Department of Neurosurgery

Chicago Institute of Neurosurgery and Neuroresearch

Chicago, Illinois

2002 Image Guidance for Placement of Instrumentation in the Spine

Department of Neurosurgery

Vanderbilt University Medical Center

Nashville, Tennessee

2006 Development of Recovery Methods for Artificial Lumbar Discs

Department of Neurosurgery

Vanderbilt University Medical Center

Nashville, Tennessee

2008-Present Comparative effectiveness and cost-utility of various surgical interventions for spinal pathology via prospective web-based registries.

Department of Neurosurgery

Vanderbilt University Medical Center
Nashville, Tennessee

2009-Present Does continuous preoperative dexmedetomidine infusion reduce time to discharge in patients undergoing major lumbar fusion? A multi center observational study of patients undergoing minimally invasive TLIF surgical approach compared to open TLIF approach.

Department of Neurosurgery
Vanderbilt University Medical Center
Nashville, Tennessee

PUBLICATIONS AND PRESENTATIONS

Peer-reviewed Papers:

1. Golding J.P., Aaronson O.S., Tonge D.A. Axonal regeneration and changes in protein secretion from lesioned peripheral nerves in the axolotl, *Ambystoma Mexicanum*. Proceedings of the Journal of physiology, 475: 5P, 1994.
2. Aaronson O.S., Golding J.P., Tonge D.A. Oriented growth of regenerating axons in Axolotl forelimbs is consistent with guidance by diffusible factors from distal nerve stumps. *Neuroscience* 66: 201-213, 1995.
3. Tonge, D.A., Aaronson, O.S., Golding, J.P., Jaggars, D. Cellular migration and axonal outgrowth from adult mammalian peripheral nerves in vitro. *Journal of Neurobiology* 29: 151-164, 1996.
4. Aaronson, O.S., Tulipan, N.B., Cywes, R., Sundell, H.W., Davis, G.H., Bruner, J.P., Richards, W.O. Robot-assisted endoscopic intrauterine myelomeningocele repair: a feasibility study. *Pediatric Neurosurgery* 36: 85-89, 2002.
5. Aaronson, O.S., Hernanz-Schulman, M., Bruner, J.P., Reed, G.W., Tulipan, N.B. Prenatal evaluation of myelomeningocele: a comparison between transabdominal ultrasonography and magnetic resonance imaging. *Radiology* 227: 839-843, 2003.
6. Isaacs R.E., Podichetty V.K., Sandhu, F.A., Santiago P., Spears J.D., Aaronson O.S., Kelly K., Hrubes M., Fessler R.G: Thoracic Microendoscopic Discectomy: A Human Cadaver Study. *Spine* 30: 1226-31, 2005.

7. Oberer, D.M., Aaronson, O.S., Cheng, J.S: Development of Quadraparesis from the Delayed Formation of a Compressive Epidural CSF Collection after Suboccipital Craniectomy and Duraplasty for Chiari 1 Malformation: Case Report and Technical Note. *Journal of Neurosurgery: Spine* 7: 450-453, 2007.
8. Mukherjee R, Chaichana K, Gokaslan Z, Aaronson O, Cheng J, McGirt MJ. Survival of patients with primary osseous spinal neoplasms from the surveillance, epidemiology, and end results (SEER) database: Histology specific analysis from 1973-2005. *Journal of Neurosurgery: Spine* 14: 143-150, 2011
9. Parker S.L., Adogwa O., Witham T., Aaronson O.S., Cheng J.S., McGirt M.J: Post-operative infection after minimally invasive versus open transforaminal lumbar interbody fusion (TLIF): Literature review and cost analysis. *Minimally Invasive Neurosurgery* 54: 33-37, 2011. *Minim Invasive Neurosurg.* 2011 Feb;54(1):33-7. doi: 10.1055/s-0030-1269904. Epub 2011 Apr 19. Review. PMID:21506066.[PubMed - indexed for MEDLINE]
10. Parker S., Adogwa O, Paul A., Anderson B., Aaronson O.S., Cheng J.S., McGirt M. Utility of Minimum Clinically Important Difference in assessing Pain, Disability, and Health State Utility After Transforaminal Lumbar Interbody Fusion for Degenerative Lumbar Spondylolithesis. *Journal of Neurosurgery: Spine* 14: 598-604, 2011. *J Neurosurg Spine.* 2011 May;14(5):598-604. doi: 10.3171/2010.12.SPINE10472. Epub 2011 Feb 18. PMID:21332281[PubMed - indexed for MEDLINE]
11. Parker SL, Fulchiero E, Davis BJ, Adogwa O, Aaronson O.S., Cheng J, Devon C, McGirt MJ. Cost effectiveness of multi-level hemilaminectomy for lumbar stenosis associated radiculopathy. *The Spine Journal.* 11:705-7011, 2011. *Spine J.* 2011 Aug;11(8):705-11. doi: 10.1016/j.spinee.2011.04.024. Epub 2011 Jun 8. PMID:21641874. [PubMed - indexed for MEDLINE]
12. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O.S., Cheng J, Devin CJ, McGirt MJ. Long-term outcomes of revision fusion for lumbar pseudoarthrosis. *Journal of Neurosurgery: Spine.* 15:393-8, 2011. *J Neurosurg Spine.* 2011 Oct;15(4):393-8. doi: 10.3171/2011.4.SPINE10822. Epub 2011 Jun 24. PMID:21699473. [PubMed - indexed for MEDLINE]
13. Adogwa O, Parker S, Davis B, Aaronson O, Cheng J, Devin C, McGirt MJ. Cost effectiveness of transforaminal lumbar inter-body fusion (TLIF) for grade I

- degenerative spondylolithesis. *Journal of Neurosurgery: Spine*. 15: 138-43, 2011. *Spine*. 2011 Aug;15(2):211. PMID:21529203. [PubMed - indexed for MEDLINE]
14. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Preoperative Zung depression scale predicts outcome after revision lumbar surgery for adjacent segment disease, recurrent stenosis, and pseudoarthrosis. *Journal of Neurosurgery: Spine*. September 2011. *Spine J*. 2012 Mar;12(3):179-85. doi: 10.1016/j.spinee.2011.08.014. Epub 2011 Sep 21. PMID:21937282 [PubMed - indexed for MEDLINE]
15. Parker SL, Adogwa O, Davis BJ, Fulchiero E, Aaronson O.S., Cheng J, Devin CJ, McGirt MJ. Cost-utility analysis of minimally invasive versus open multilevel laminectomy for lumbar stenosis. *Journal of Spinal Disorders and Techniques*. September, 2011. *J Spinal Disord Tech*. 2013 Feb;26(1):42-7. doi: 10.1097/BSD.0b013e318232313d. PMID:21959840 [PubMed - indexed for MEDLINE]
16. Mukherjee R, Chaichana K, Adogwa O, Gokaslan Z, Aaronson O, Cheng J, McGirt MJ. Association of extent of local tumor invasion and survival in patients with malignant primary osseous spinal neoplasms from the surveillance, epidemiology, and end results (SEER) database. *World Neurosurgery*. 76: 580-5, 2011. *World Neurosurg*. 2011 Dec;76(6):580-5. doi: 10.1016/j.wneu.2011.05.016. PMID:22251507 [PubMed - indexed for MEDLINE]
17. Adogwa O, Parker SL, Mendenhall SK, Shau DN, Aaronson O, Cheng JS, McGirt MJ. Laminectomy and extension of instrumented fusion improves 2-year pain, disability, and quality of life in patients with adjacent segment disease: Defining the long-term effectiveness of surgery. *World Neurosurgery*. December 2011. *World Neurosurg*. 2011 Dec 24. doi:pii: S1878-8750(11)01627-5. 10.1016/j.wneu.2011.12.082. PMID:22381277 [PubMed - as supplied by publisher]
18. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost per quality-adjusted life year gained of revision neural decompression and instrumented fusion for same level recurrent lumbar stenosis: Defining the value of surgical intervention. *Journal of Neurosurgery: Spine* 16: 135-40, 2012. *J Neurosurg Spine*. 2012 Feb;16(2):135-40. doi:

10.3171/2011.9.SPINE11308. Epub 2011 Nov 4.PMID:22054639[PubMed - indexed for MEDLINE]

19. Ghiassi, M., Ghiassi, M., Kahn, E., Tomycz, L., Ayad, M., Aaronson, O. Cauda equine syndrome secondary to absent inferior vena cava managed with surgical decompression. *Journal of Neurosurgery: Spine* 16: 201-5, 2012 *J Neurosurg Spine*. 2012 Feb;16(2):201-5. doi: 10.3171/2011.10.SPINE1121. Epub 2011 Nov 25.PMID:22117140[PubMed - indexed for MEDLINE]
20. Parker SL, Adogwa O, Aaronson O.S., Cheng J, McGirt MJ. Minimally invasive versus open transforaminal lumbar interbody fusion (TLIF): an evidenced-based review of the literature. *Neurosurgery. Provisionally accepted*
21. Motzny N., Abraham C.M., Yaffe D., Seebach C.L., Devin C.J., Spengler D.M., McGirt M.J., Aaronson O.S., Cheng J.S., Wegener S.T. Cognitive-based physical therapy to improve surgical outcomes: A case series. *Physical Therapy, Phys Ther.* 2013 Aug;93(8):1130-9.doi: 10.2522/ptj.20120426. Epub 2013 Apr 18. PMID:23599351[PubMed - in process]

Submitted Manuscripts (under review):

1. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost effectiveness of extension of fusion for adjacent segment disease. *The Spine Journal*
2. Chaichana K, Mukherjee R, Gokaslan Z, Aaronson O, Cheng J, McGirt MJ. Association of surgical resection and survival in patients with primary osseous spinal neoplasms: A 30-year population-based study. *Journal of Neurosurgery: Spine*
3. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Cost effectiveness of revision fusion for lumbar pseudoarthrosis. *Journal of Neurosurgery: Spine*
4. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Long-term outcomes of extension fusion for adjacent segment disease. *The Spine Journal*

5. Adogwa O, Parker SL, Shau D, Mendelhall SK, Aaronson O, Cheng J, Devin CJ, McGirt MJ. Long-term outcomes of revision fusion surgery for same-level recurrent persistent stenosis. *Neurosurgery*
6. Davis BJ, Adogwa O, Parker SL, Fulchiero E, Aaronson O, Cheng J, Devin CF, McGirt MJ. Minimally invasive versus multi-level hemilaminectomy for lumbar stenosis: Comparison of postoperative narcotic use, return to work, and two-year outcomes. *World Neurosurgery*

Book Chapters:

1. Mendel, E., Guiot, B.H., Isaacs, R.E., Rhines, L.D., Fessler, R.G., Aaronson, O.S. Diagnosis and management of thoracic disc herniation and the transpedicular decompression for thoracic disc herniation. *Atlas of Neurosurgical Techniques: Spine and Peripheral Nerves*. Thieme, New York, NY 2006

Peer-reviewed Abstracts and Podium Presentations:

1. Golding J.P., Aaronson O.S., Tonge D.A. Axonal regeneration and changes in protein secretion from lesioned peripheral nerves in the axolotl, *Ambystoma Mexicanum*. Physiological Society Meeting, London, England. December 1993. *Abstract*
2. Aaronson O.S. Robotic Endoscopic Repair of Spina Bifida: Sheep Model. Society for Maternal and Fetal Medicine Annual Meeting, New Orleans, LA. January 2002. *Podium Presentation*
3. Isaacs R.E., Aaronson O.S., Sandu F.A., Santiago P., Fessler R.G. Thoracic Microendoscopic Discectomy, Spine Science Management, New Orleans, LA. November 2002. *Abstract*
4. Sandu F.A., Isaacs R.E., Aaronson O.S., Santiago P., Fessler R.G. Percutaneous Thoracic Pedicle Screws, Spine Science Management, New Orleans, LA. November 2002. *Abstract*
5. Isaacs R.E., Aaronson O.S., Sandu F.A., Santiago P., Fessler R.G. Percutaneous Thoracic Pedicle Screws, Joint Section on Disorders of the Spine and Peripheral Nerves, Tampa, FL. March 2003. *Abstract*

6. Isaacs R.E., Aaronson O.S., Sandu F.A., Santiago P., Fessler R.G. Thoracic Microendoscopic Discectomy, Joint Section on Disorders of the Spine and Peripheral Nerves, Tampa, FL. March 2003. *Abstract*
7. Isaacs R.E., Aaronson O.S., Sandu F.A., Santiago P., Fessler R.G. Thoracic Microendoscopic Discectomy, Annual Meeting of the American Association of Neurological Surgeons, San Diego, CA. April 2003. *Abstract*
8. Isaacs R., Aaronson O.S., Santiago P, Sandhu F, Fessler, RG: Percutaneous thoracic pedicle screw placement. Annual Meeting of the American Association of Neurological Surgeons, San Diego, 2003. *Abstract*
9. Isaacs R.E., Aaronson O.S., Fessler R.G. Microendoscopic Posterolateral Thoracic Discectomy, World Spine II, Chicago, IL. August 2003. *Abstract*
10. Spooner J., Yu H., Sun D.A., Carpenter R.O., Segebarth P.B., Aaronson O.S., Cheng J. S. Retroperitoneal transpsoas approach for retrieval of lumbar artificial disc: a cadaveric feasibility study. Congress of Neurological Surgeons, 2006. *Abstract*
11. Parker SL, Adogwa O, Aaronson O, Cheng JS, McGirt MJ. Post-operative infection after minimally invasive versus open transforaminal lumbar interbody fusion (TLIF): Literature review and cost analysis. Congress of Neurological Surgeons Annual Meeting, October 2010. *Abstract*
12. Lebow RL, Adogwa O, Parker SL, Aaronson O, Cheng JS, McGirt MJ. Microdiscectomy improves pain-associated depression, somatic anxiety, and mental well being in patients with herniated lumbar disc. Congress of Neurological Surgeons Annual Meeting, October 2010. *Abstract*
13. Adogwa O, Parker SL, Aaronson OS, Cheng J, McGirt MJ. Minimally-invasive vs. open transforaminal lumbar interbody fusion (TLIF): An evidenced-based review of the literature. 25th Annual North American Spine Society Meeting, October 2010. *Podium Presentation*
14. Parker SL, Chaichana KL, Mukherjee D, Gokaslan ZL, Aaronson O, Cheng J, McGirt MJ. Association of surgical resection and survival in patients with malignant primary osseous spinal neoplasms: A 30-year population-based study. Southern Neurological Society Annual Meeting, February 2011. *Podium Presentation*
15. Chaichana K.L., Parker S., Adogwa O., Mukherjee D., Aaronson O.S., Cheng J.S., Gokaslan Z.L., McGirt M. Survival of Patients with Malignant Primary Osseous Spinal Neoplasms from the Surveillance, Epidemiology, and End Results (SEER)

- Database from 1973-2005. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
16. Parker S., Lebow R.L., Adogwa O., Sharma A., Aaronson O.S., Cheng J.S., Gokaslan Z.L., McGirt M. Radiographic Same-level Recurrent Disc Herniation After Lumbar Discectomy: Prospective Longitudinal Study with Two-year Follow-up. . AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
 17. Fulchiero E., Davis B.J, Adogwa O., Aaronson O.S., Cheng J.S., Devin C., McGirt M. Cost Effectiveness of Multilevel Hemilaminectomy for Lumbar Stenosis Associated Radiculopathy. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
 18. Parker S., Chaichana K.L., Aaronson O.S., Cheng J.S., Gokaslan Z.L., McGirt M. Pre-operative Grading Scale to Predict Survival in Patients Undergoing Resection of Malignant Primary Osseous Spinal Neoplasms. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
 19. Adogwa O, Parker S., Aaronson O.S., Cheng J.S., McGirt M. Comparative Effectiveness of Minimally Invasive versus Open Transforaminal Lumbar Interbody Fusion: Two-year Assessment of Narcotic Use, Return to Work, Disability, and Quality of Life. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
 20. Parker S., Adogwa O, Paul A., Anderson B., Aaronson O.S., Cheng J.S., McGirt M. Determination of Minimum Clinically Important Difference (MCID) in Pain, Disability, and Health State Utility After Transforaminal Lumbar Interbody Fusion (TLIF) for Degenerative Lumbar Spondylolithesis. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
 21. Adogwa O, Davis B, Fulchiero E., Aaronson O.S., Cheng J.S., Devin C., McGirt M. Cost-utility Analysis of Minimally Invasive Versus Open Multilevel Decompression for Lumbar Stenosis. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Podium Presentation*
 22. Parker SL, Adogwa O, Davis BJ, Cheng JS, Aaronson O, McGirt MJ. Cost effectiveness of minimally invasive vs. open transforaminal lumbar interbody fusion (TLIF) for degenerative spondylolithesis associated low-back and leg pain over two-

- years. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Abstract*
23. Adogwa O, Parker SL, Paul A, Aaronson O, Cheng JS, McGirt MJ. Cost effectiveness of transforaminal lumbar interbody fusion (TLIF) for grade I degenerative spondylolithesis. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Abstract*
24. Adogwa O, Parker SL, Aaronson O, Cheng JS, McGirt MJ. Minimally invasive vs. open transforaminal lumbar interbody fusion (TLIF): An evidenced-based review of the literature. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Abstract*
25. McGirt MJ, Chaichana KL, Mukherjee D, Parker SL, Adogwa O, Cheng JS, Aaronson O, Gokaslan ZL. Association of surgical resection and survival in patients with malignant primary osseous spinal neoplasms from the surveillance, epidemiology, and end results (SEER) database. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, March 2011. *Abstract*
26. Parker SL, Chaichana KL, Aaronson O, Cheng J, Gokaslan ZL, McGirt MJ. Pre-operative grading scale to predict survival in patients undergoing resection of malignant primary osseous spinal neoplasms. American Association of Neurological Surgeons Annual Meeting, April 2011. *Podium Presentation*
27. McGirt MJ, Adogwa O, Parker SL, Paul A, Davis B, Aaronson O, Devon C, Cheng JS. Cost effectiveness of transforaminal lumbar inter-body fusion (TLIF) for grade I degenerative spondylolithesis. American Association of Neurological Surgeons Annual Meeting, April 2011. *Podium Presentation*
28. McGirt MJ, Adogwa O, Parker SL, Aaronson O, Cheng JS. Comparative effectiveness of minimally invasive versus open transforaminal lumbar interbody fusion: Two-year assessment of narcotic use, return to work, disability, and QOL. American Association of Neurological Surgeons Annual Meeting, April 2011. *Podium Presentation*

Selected Invited Abstracts and Presentations:

1. Aaronson O.S. Robot-assisted endoscopic intrauterine myelomeningocele repair: an animal model. Lecture at the Meacham Neurosurgery Meeting, Nashville, TN. November 2001.

2. Aaronson, O.S., Tulipan, N.B., Cywes, R., Sundell, H.W., Davis, G.H., Bruner, J.P., Richards, W.O. Robot-assisted endoscopic intrauterine myelomeningocele repair: a feasibility study. Poster presentation 20th Annual Research Forum, Vanderbilt University Medical Center, Nashville, TN. April 2002.
3. Aaronson O.S. Minimally Invasive Spine Procedures: Technique and Application Scenarios. Lecture at the Meacham Neurosurgery Meeting, Nashville, TN. November 2004.
4. Aaronson O.S. Faculty “Transition Into Practice” Resident Fellow Course. Sponsored by Medtronic Sofamor Danek. Memphis, TN 2004, 2005, 2006.
5. Aaronson O.S. Faculty “Kyphoplasty” Resident Course. Sponsored by Medtronic Sofamor Danek. Nashville, TN 2005, 2009.
6. Aaronson O.S. Management of Thoracic Disc Herniations. Neurosurgery Grand Rounds, Vanderbilt University, Nashville, TN. March 2005.
7. Aaronson O.S. A Surgeon’s Perspective on Acute Spinal Problems. Neurology Teaching Conference, Vanderbilt University, Nashville, TN. February 2006, August 2009, July 2010.
8. Aaronson O.S. Overview of Peripheral Nerve Surgery. Neurosurgery Journal Club, Vanderbilt University, Nashville, TN. May 2007, October 2008.
9. Aaronson O.S. Management of Benign Compression Fractures. Lecture to Internal Medicine Department , Vanderbilt University, Nashville, TN. 2007.
10. Aaronson O.S. X-STOP Interspinous Process Decompression System. Lecture at the Meacham Neurosurgery Meeting, Nashville, TN. October 2007.
11. Aaronson O.S. Management of Pathological Compression Fractures. Lecture to Hematology Oncology Department , Vanderbilt University, Nashville, TN. 2008.
12. Aaronson O.S. Peripheral Nerve Surgery for the Boards. Neurosurgery Teaching Conference, Vanderbilt University, Nashville, TN. October 2008.
13. Aaronson O.S. Pitfalls of Spinal Diagnoses. Neurosurgery Teaching Conference, Vanderbilt University, Nashville, TN. February 2009.
14. Aaronson O.S. Peripheral Nerve Biopsy. Combined Neurology, Neurosurgery, Neuropathology Grand Rounds Conference, Vanderbilt University, Nashville, TN. March 2009.
15. Aaronson O.S. Neurosurgical Training Past, Present and Future. Neurosurgery Teaching Conference, Vanderbilt University, Nashville, TN. May 2011.