

CURRICULUM VITAE FOR ACADEMIC PROMOTION

The Johns Hopkins University School of Medicine

January 2018

Nicholas Theodore, MS, MD, FAANS, FACS

DEMOGRAPHIC INFORMATION

Current Appointments

2016-present Professor of Neurosurgery, PAR, Johns Hopkins University School of Medicine
2016-present Professor of Orthopaedic Surgery, PAR, Johns Hopkins University School of Medicine
2016-present Donlin M. Long Professor, Johns Hopkins University School of Medicine
2016-present Director, Neurosurgical Spine Program, Johns Hopkins Medicine
2017-present Co-Director, Carnegie Center for Surgical Innovation, Johns Hopkins University

Personal Data

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Education and Training

Undergraduate

1985 B.A., Government, Cornell University, Ithaca, NY

Graduate

1987 M.S., Physiology and Biophysics, Georgetown University, Washington, D.C.

Doctoral

1991 M.D., Georgetown University School of Medicine, Washington, D.C.

Postdoctoral

1991-1992 Intern, General Surgery, National Naval Medical Center, Bethesda, MD
1992-1993 Senior General Medical Officer, Third Force Service Support Group, Fleet Marine Force, Pacific Command, Okinawa, Japan
1993-1997 Resident, Neurological Surgery, National Naval Medical Center, Bethesda, MD
1995-1995 Medical Staff Fellow, Surgical Neurology Branch, National Institute for Neurological Disorders and Stroke, Bethesda, MD
1995-1996 Research Fellow, Spinal Neurosurgery, Barrow Neurological Institute, Phoenix, AZ
1996-1997 Senior Registrar, Frenchay Healthcare Trust, Department of Neurosurgery, Bristol, England
1997-2001 Resident, Neurological Surgery, Barrow Neurological Institute, Phoenix, AZ
1999-2000 Spinal Surgery Fellow, Barrow Neurological Institute, Phoenix, AZ

Professional Experience

1988-1991 Ensign, Medical Corps, United States Navy Reserve
1991-1995 Lieutenant, Medical Corps, United States Navy Reserve
1995-2001 Lieutenant Commander, Medical Corps, United States Navy Reserve
1997-2016 Visiting Adjunct Lecturer, Department of Chemical, Bio, and Materials Engineering, Arizona State University
2001-2007 Commander, Medical Corps, United States Navy Reserve
2001-2003 Chief, Division of Neurological Surgery, Naval Medical Center, San Diego, CA

2003-2016	Director, Neurotrauma Program, Barrow Neurological Institute
2003-present	Assistant Professor of Surgery, Uniformed Services University of the Health Sciences
2005-2016	Associate Director, Neurosurgical Residency Training Program, Barrow Neurological Institute
2006-present	Medical Advisory Board, Charles Maddock Foundation
2007-2007	Honorable Discharge, United States Navy Reserve
2007-2013	Chief Medical Officer and Co-Founder, Excelsius Surgical
2008-2016	Vice President, Barrow Neurosurgical Associates, LTD
2009-2016	Professor, Clinical Scientist Track, Division of Neurological Surgery, Barrow Neurological Institute
2009-2016	Team Neurosurgeon, Arizona Cardinals
2010-2013	National Medical Director, ThinkFirst Foundation
2010-2016	Chief, Spine Section, Division of Neurological Surgery, Barrow Neurological Institute
2010-2016	Director, Fellowship Program, Complex Spinal Surgery, Barrow Neurological Institute
2010-2016	Adjunct Professor, Arizona State University School of Life Sciences
2010-2016	Team Neurosurgeon, Phoenix Coyotes
2010-2016	Clinical Professor, Department of Surgery, Creighton University School of Medicine
2013-2014	Unaffiliated Neurotrauma Consultant, National Football League
2013-2015	President, Board of Directors, ThinkFirst Foundation
2015-2016	Volker K.H. Sonntag Endowed Professor of Neurosurgery, Barrow Neurological Institute
2016-present	Professor of Neurosurgery (PAR), Johns Hopkins University School of Medicine
2016-present	Professor of Orthopaedic Surgery (PAR), Johns Hopkins University School of Medicine
2016-present	Donlin M. Long Endowed Professor, Johns Hopkins University School of Medicine
2017-present	Co-Director, Carnegie Center for Innovation

PUBLICATIONS

Original Research [OR]

1. Hargraves RW, **Theodore N**, Pulliam MW: Current management of carotid atherosclerosis. *Military Medicine*. 1995;160(3):107-109.
2. **Theodore N**, Dickman CA: Current management of thoracic disc herniation. *Contemporary Neurosurgery*. 1996;18(21):1-6.
3. Baskin J, Vishteh AG, **Theodore N**, Sonntag VKH: Posterior transarticular screw arthrodesis. *Crit Rev Neurosurg*. 1997;7:89-98.
4. Dickman CA, **Theodore N**, Baskin JJ: Microsurgical endoscopic approaches for thoracic discectomy and vertebrectomy. *Techniques in Neurosurgery*. 1997;3(4):289-300.
5. Song GS, **Theodore N**, Dickman CA, Sonntag VKH: Unilateral posterior atlantoaxial transarticular screw fixation. *J Neurosurg*. 1997;(87)6:851-855.
6. Apostolides PJ, **Theodore N**, Spetzler RF, Baskin JJ, Zabramski JM. Technique of microsurgical carotid thromboendarterectomy. *Operative Techniques in Neurosurgery*. 1998;1(4):185-188.
7. Baskin JJ, Vishteh AG, **Theodore N**, McDougall CG, Spetzler RF: Endovascular treatment of basilar artery aneurysms. *Crit Rev Neurosurg*. 1998;8:50-60.
8. David CA, Vishteh AG, Spetzler RF, **Theodore N**. Patch graft angioplasty techniques for extracranial occlusive vascular disease. *Operative Techniques in Neurosurgery*. 1998;1(4):208-211.
9. Guest JD, **Theodore N**, Spetzler RF, Vishteh AG: Overview and patient selection for carotid endarterectomy. *Operative Techniques in Neurosurgery*. 1998;1(4):52-159.
10. Shedd S, **Theodore N**, Spetzler RF, Vishteh AG: Anesthesia for occlusive vascular disease. *Operative Techniques in Neurosurgery*. 1998;1(4):173-177.
11. **Theodore N**, Baskin JJ, Spetzler RF, Vishteh AG, Apostolides PJ, Holland MC: Microsurgical carotid endarterectomy. *Operative Techniques in Neurosurgery*. 1998;1(4):178-184.
12. Vishteh AG, **Theodore N**, Spetzler RF. Surgical management of extracranial vertebral artery occlusive vascular diseases. Part I: Anatomy and pathophysiology. *Operative Techniques in Neurosurgery*. 1998;1(4):196-200.
13. Vishteh AG, **Theodore N**, Spetzler RF. Surgical management of extracranial vertebral artery occlusive vascular diseases. Part 2: Surgical strategies. *Operative Techniques in Neurosurgery*. 1998;1(4):201-207.
14. Hurlbert RJ, **Theodore N**, Drabier JB, Magwood A, Sonntag VKH: A prospective randomized double-blind controlled trial evaluating the efficacy of an epidural analgesic paste following lumbar decompressive surgery. *J Neurosurg*. 1999;90(4 Suppl):191-197.

15. ReKate HL, **Theodore N**, Sonntag VKH, Dickman CA: Pediatric spine and spinal cord trauma. State of the art for the third millennium. *Childs Nerv Syst.* 1999;15(11-12):743-750.
16. **Theodore N**, Sonntag VKH: Spinal surgery: The past century and the next. *Neurosurgery.* 2000;46(4):767-777.
17. **Theodore N**, Sonntag VKH: Decision making in degenerative cervical spine surgery. *Clin Neurosurg.* 2001;48:260-276.
18. **Theodore N**, Vishteh AG, Baskin JJ, Sonntag VKH. Titanium mesh cage interbody fusion in the thoracolumbar spine. *Techniques in Neurosurgery.* 2001;7(2):119-126.
19. Rogers CL, **Theodore N**, Dickman CA, Sonntag VKH, Thomas T, Lam S, Speiser BL: Surgery and permanent 125I seed paraspinal brachytherapy for malignant tumors with spinal cord compression. *Int J Radiat Oncol, Biol, Phys.* 2002;54(2):505-513.
20. Sonntag VKH, **Theodore N**: Honored guest presentation: Leading the future of spinal surgery. *Clin Neurosurg.* 2003;50:178-206.
21. Wells-Roth D, **Theodore N**, Riina H: Microsurgical management of vascular lesions affecting the spine and spinal cord. *Operative Techniques in Neurosurgery.* 2003;6(3):171-172.
22. Blondeel PN, Murphy JW, Debrosse D, Nix JC, 3rd, Puls LE, **Theodore N**: Closure of long surgical incisions with a new formulation of 2-octylcyanoacrylate tissue adhesive versus commercially available methods. *Am J Surg.* 2004;188(3):307-313.
23. Feiz-Erfan I, Horn EM, Zabramski JM, Klopfenstein JD, Kim LJ, Bristol RE, Lekovic GP, Gore PA, Partovi S, **Theodore N**, Porter RW: Incidence and pattern of neurovascular injury associated with trauma to the skull base. *Skull Base: An Interdisciplinary Approach.* 2004;14(suppl 1):17.
24. Gonzalez LG, **Theodore N**, Dickman CA, Sonntag VKH: Occipitoatlantal and atlantoaxial dislocation. *Operative Techniques in Neurosurgery.* 2004;7(1):16-21.
25. Hartl R, **Theodore N**, Dickman CA, Sonntag VKH: Technique of thoracic pedicle screw fixation for trauma. *Operative Techniques in Neurosurgery.* 2004;7(1):22-30.
26. Hartl R, **Theodore N**, Dickman CA, Standerfer RJ, Sonntag VKH: Anterior approaches for the management of thoracic spine fractures. *Operative Techniques in Neurosurgery.* 2004;7(1):31-40.
27. Horn EM, Lekovic GP, Feiz-Erfan I, Sonntag VKH, **Theodore N**: Cervical magnetic resonance imaging abnormalities not predictive of cervical spine instability in traumatically injured patients. Invited submission from the Joint Section Meeting on Disorders of the Spine and Peripheral Nerves, March 2004. *J Neurosurg (Spine 1).* 2004;1:39-42.
28. Hott JS, **Theodore N**, Klopfenstein JD, Papadopoulos S, Dickman CA, Sonntag VKH: Image guidance in spinal surgery for trauma: Iso-C 3D. *Operative Techniques in Neurosurgery.* 2004;7(1):42-45.
29. Bambakidis NC, **Theodore N**, Nakaji P, Harvey A, Sonntag VKH, Preul MC, Spetzler RF: Endogenous stem cell proliferation after central nervous system injury: alternative therapeutic options. *Neurosurg Focus.* 2005;19(3):E1.
30. Horn EM, **Theodore N**, Sonntag VKH: SCIWORA: An antiquated acronym. *Seminars in Spine Surgery.* 2005;17(1):46-48.
31. Lesley A, **Theodore N**, Pritchard P, Shultz K: Bilateral thoracoscopic sympathectomy for the treatment of palmar hyperhidrosis in the active-duty population. *Military Medicine.* 2005;170(12):1016-1018.
32. Carstairs SD, Tanen DA, Duncan TD, Nordling OB, Wanebo JE, Paluska TR, **Theodore N**, Riffenburgh RH: Computed tomographic angiography for the evaluation of aneurysmal subarachnoid hemorrhage. *Acad Emerg Med.* 2006;13(5):486-492.
33. Dogan S, Safavi-Abbasi S, **Theodore N**, Horn E, ReKate HL, Sonntag VKH: Pediatric subaxial cervical spine injuries: Origins, management, and outcome in 51 patients. *Neurosurg Focus.* 2006;20(2):E1.
34. Figueiredo EG, Castilho De La Cruz, M, **Theodore N**, Deshmukh P, Preul MC: Modified cervical laminoforaminotomy based on anatomic landmarks reduces need for bony removal. *Minim Invasive Neurosurg.* 2006;49(1):37-42.
35. Horn EM, Bristol RE, Feiz-Erfan I, Beres EJ, Bambakidis NC, **Theodore N**: Spinal cord compression from traumatic anterior cervical pseudomeningoceles. *J Neurosurg Spine.* 2006;5(3):254-258.
36. Horn EM, Feiz-Erfan I, Bambakidis NC, Sonntag VK, **Theodore N**: Treatment of thoracolumbar burst fractures: Operative and nonoperative approaches (abstract). *J Neurosurg.* 2006;104:A654.
37. Horn EM, Hott J, Porter RW, **Theodore N**, Papadopoulos S, Sonntag VKH: Atlantoaxial stabilization with the use of C1-C3 lateral mass screw fixation. Technical note. *J Neurosurg Spine.* 2006;5(2):172-177.
38. Horn EM, **Theodore N**, Feiz-Erfan I, Lekovic GP, Dickman CA, Sonntag VKH: Complications of halo fixation in the elderly. *J Neurosurg Spine.* 2006;5(1):46-49.

39. Safavi-Abbasi S, Reis C, Talley MC, **Theodore N**, Nakaji P, Spetzler RF, Preul MC: Rudolph Ludwig Karl Virchow: Pathologist, physician, anthropologist, and politician. Implications of his work for the understanding of cerebrovascular pathology and stroke. *Neurosurg Focus*. 2006;29(6):E1.
40. **Theodore N**, ReKate HL: Children are different from adults. *J Neurosurg*. 2006;104(1 Suppl):1-2.
41. Bristol RE, **Theodore N**, ReKate HL: Segmental spinal dysgenesis: Report of four cases and proposed management strategy. *Childs Nerv Syst*. 2007;23(3):359-364.
42. Fehlings M, **Theodore N**, Harrop J, Maurals G, Kuntz C, Shaffrey C, Kwon B, Chapman J, Yee A, Tremblay P, McKerracher L: The cethrin phase I/IIa prospective clinical trial of a cethrin for the treatment of acute spinal cord injury. *Spine J*. 2007;7(5):159S.
43. Feiz-Erfan I, Horn EM, **Theodore N**, Zabranski JM, Klopfenstein JD, Lekovic GP, Albuquerque FC, Partovi S, Goslar PW, Petersen SR: Incidence and pattern of direct blunt neurovascular injury associated with trauma to the skull base. *J Neurosurg*. 2007;107:364-369.
44. Horn EM, Feiz-Erfan I, Lekovic GP, Dickman CA, Sonntag VKH, **Theodore N**: Survivors of occipitoatlantal dislocation injuries: Imaging and clinical correlates. *J Neurosurg Spine*. 2007;6(2):113-120.
45. Rocha R, Safavi-Abbasi S, Reis C, **Theodore N**, Bambakidis N, de Oliveira E, Sonntag VKH, Crawford NR: Working area, safety zones, and angles of approach for posterior C1 lateral mass screw placement: A quantitative anatomic and morphometric evaluation. *J Neurosurg Spine*. 2007;6(3):247-254.
46. Safavi-Abbasi S, Brasiliense LB, Workman RK, Talley MC, Feiz-Erfan I, **Theodore N**, Spetzler RF, Preul MC: The fate of medical knowledge and the neurosciences during the time of Genghis Khan and the Mongolian Empire. *Neurosurg Focus*. 2007;23(1): E13.
47. Safavi-Abbasi S, Zabranski JM, Deshmukh P, Reis CV, Bambakidis NC, **Theodore N**, Crawford NR, Spetzler RF, Preul MC: Moving toward the petroclival region: A model for quantitative and anatomical analysis of tumor shift. *J Neurosurg*. 2007;107(4):797-804.
48. Senoglu M, Safavi-Abbasi S, **Theodore N**, Bambakidis NC, Crawford NR, Sonntag VK: The frequency and clinical significance of congenital defects of the posterior and anterior arch of the atlas. *J Neurosurg Spine*. 2007;7(4):399-402.
49. Assina R, Sankar T, **Theodore N**, Javedan SP, Gibson AR, Horn KM, Berens M, Sonntag VKH, Preul MC: Activated autologous macrophage implantation in a large-animal model of spinal cord injury. *Neurosurg Focus*. 2008;25(5):E3.
50. Bambakidis NC, Butler J, Horn EM, Wang X, Preul MC, **Theodore N**, Spetzler RF, Sonntag VKH: Stem cell biology and its therapeutic applications in the setting of spinal cord injury. *Neurosurg Focus*. 2008;24(3-4): E-20.
51. Gore P, **Theodore N**, Brasiliense L, Kim LJ, Garrett M, Nakaji P, Gonzalez LF, McDougall CG, Albuquerque FC: The utility of onyx for preoperative embolization of cranial and spinal tumors. *Neurosurgery*. 2008;62(6):1204-11; discussion 1211-2.
52. Horn EM, **Theodore N**, Assina R, Spetzler RF, Sonntag VKH, Preul MC: The effects of intrathecal hypotension on tissue perfusion and pathophysiological outcome after acute spinal cord injury. *Neurosurg Focus*. 2008;25(5):E12.
53. Horn EM, **Theodore N**, Crawford NR, Bambakidis NC, Sonntag VKH: Transfacet screw placement for posterior fixation of C7: Technical report. *J Neurosurg Spine*. 2008;9(2):200-206.
54. Kakarla UK, Kim LJ, Chang SW, **Theodore N**, Spetzler RF: Safety and accuracy of bedside external ventricular drain placement. *Neurosurgery*. 2008;63(1 Suppl 1):ONS162-6; discussion ONS166-7.
55. Pickett GE, Duggal N, **Theodore N**, Sonntag VKH: Anterior cervical corpectomy and fusion accelerates degenerative disease at adjacent vertebral segments. *SAS Journal*. 2008;2(1):23-27.
56. Safavi-Abbasi S, Senoglu M, **Theodore N**, Workman RK, Gharabaghi A, Feiz-Erfan I, Spetzler RF, Sonntag VKH: Microsurgical management of spinal schwannomas: Evaluation of 128 cases. *J Neurosurg Spine*. 2008;9(1):40-47.
57. Sankar T, Assina R, Karis JP, **Theodore N**, Preul MC: Neurosurgical implications of mannitol accumulation within a meningioma and its peritumoral region demonstrated by magnetic resonance spectroscopy. *J Neurosurg*. 2008;108(5):1010-1013.
58. Bambakidis NC, Horn EM, Nakaji P, **Theodore N**, Bless E, Dellovade T, Ma C, Wang X, Preul MC, Coons SW, Spetzler RF, Sonntag VKH: Endogenous stem cell proliferation induced by intravenous hedgehog agonist administration after contusion in the adult rat spinal cord. *J Neurosurg Spine*. 2009;10(2):171-6.
59. Crawford NR, Yüksel KZ, Doğan S, Villasana-Ramos O, Soto-Barraza JC, Baek S, Porter RW, Marciano FF, **Theodore N**: Trajectory analysis and pullout strength of self-centering lumbar pedicle screws. *J Neurosurg Spine*. 2009;10(5):486-91.
60. Gore PA, Chang S, **Theodore N**: Cervical spine injuries in children: attention to radiographic differences and stability compared to those in the adult patient. *Semin Pediatr Neurol*. 2009;16(1):42-58.
61. Horn EM, Reyes PM, Baek S, Senoğlu M, **Theodore N**, Sonntag VK, Crawford NR: Biomechanics of C-7 transfacet screw fixation. *J Neurosurg Spine*. 2009 Sep;11(3):338-43.

62. Subramaniam V, Chamberlain RH, **Theodore N**, Baek S, Safavi-Abbasi S, Senoğlu M, Sonntag VK, Crawford NR. Biomechanical effects of laminoplasty versus laminectomy: stenosis and stability. *Spine (Phila Pa 1976)*. 2009;34(16):E573-8.
63. Baaj AA, Uribe JS, Nichols TA, **Theodore N**, Crawford NR, Sonntag VK, Vale FL: Health care burden of cervical spine fractures in the United States: analysis of a nationwide database over a 10-year period. *J Neurosurg Spine*. 2010;13(1):61-66.
64. Brasiliense LB, Safavi-Abbasi S, Crawford NR, Spetzler RF, **Theodore N**: The legacy of Hephaestus: The first craniotomy. *Neurosurgery* 2010;67(4):881-884.
65. Brasiliense LB, **Theodore N**, Lazaro BC, Sayed ZA, Deniz FE, Sonntag VK, Crawford NR: Quantitative analysis of misplaced pedicle screws in the thoracic spine: how much pullout strength is lost? Presented at the 2009 Joint Spine Section Meeting. *J Neurosurg Spine*. 2010;12(5):503-8.
66. Cavalcanti DD, Agrawal A, Garcia-Gonzalez U, Crawford NR, Tavares N, **Theodore N**, Sonntag VKH, Preul MC: Anterolateral C1-C2 transarticular fixation for atlantoaxial arthrodesis: landmarks, working area, and angles of approach. *Neurosurgery*. 2010;67(3 Suppl Operative):ons38-42.
67. Chang SW, Kakarla UK, Maughan PH, DeSanto J, Fox D, **Theodore N**, Dickman CA, Papadopoulos S, Sonntag VK: Four-level anterior cervical discectomy and fusion with plate fixation. Radiographic and clinical results. *Neurosurgery*. 2010;66(4):639-646.
68. Crawford NR, Dogan S, Yuksel KZ, Villasana-Ramos O, Soto-Barraza JC, Sawa AG, Porter RW, Marciano FF, **Theodore N**: In vitro biomechanical analysis of a new lumbar low-profile locking screw-plate construct versus a standard top-loading cantilevered pedicle screw-rod construct. Technical report. *Neurosurgery*. 2010;66(2):E404-6.
69. Filippidis AS, Kalani MY, **Theodore N**, ReKate HL: Spinal cord traction, vascular compromise, hypoxia, and metabolic derangements in the pathophysiology of tethered cord syndrome. *Neurosurg Focus*. 2010;29(1):E9.
70. Kakarla UK, Chang SW, **Theodore N**, Sonntag VK: Atlas fractures. *Neurosurgery*. 2010;66(3 Suppl):60-7.
71. Kakarla UK, Little AS, Chang SW, Sonntag VKH, **Theodore N**: Placement of percutaneous thoracic pedicle screws using neuronavigation. *World Neurosurg*. 2010;74(6):606-610.
72. Kushchayev S, Kushchayeva Y, **Theodore N**, Preul MC, Clark OH: Percutaneous vertebroplasty for thyroid cancer metastases to the spine. *Thyroid*. 2010;20(5):555-60.
73. Lazaro BC, Brasiliense LB, Sawa AG, Reyes PM, **Theodore N**, Sonntag VK, Crawford NR: Biomechanics of a novel minimally invasive lumbar interspinous spacer: Effects on kinematics, facet loads, and foramen height. *Neurosurgery*. 2010;66(3 Suppl Operative):126-132.
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75. Senoglu M, Safavi-Abbasi S, **Theodore N**, Crawford NR, Sonntag VK: Feasible and accurate occipitotlantal transarticular fixation: an anatomic study. *Neurosurgery*. 2010;66(3 Suppl Operative):173-177.
76. Agarwal A, Reyes PM, Garcia-Gonzalez U, Cavalcanti DD, Chang S, **Theodore N**, Sonntag VKH, Spetzler RF, Preul M: A novel technique of odontoidoplasty and C1 arch reconstruction: Anatomical and biomechanical basis. *Neurosurgery*. 2011;68:ons103-113.
77. Albuquerque FC, Hu YC, Dashti SR, Abla AA, Clark JC, Alkire B, **Theodore N**, McDougall CG: Craniocervical arterial dissections as a sequelae of chiropractic manipulation: Patterns of injury and management. *J Neurosurg*. 2011;115(6):1197-205.
78. Baaj AA, Reyes PM, Yaqoobi AS, Uribe JS, Vale FL, **Theodore N**, Sonntag VK, Crawford NR: Biomechanical advantage of the index-level pedicle screw in unstable thoracolumbar junction fractures. *J Neurosurg Spine*. 2011;14(2):192-97.
79. Brasiliense LB, Lazaro BC, Reyes PM, Dogan S, **Theodore N**, Crawford NR: Biomechanical contribution of the rib cage to thoracic stability. *Spine (Phila Pa 1976)*. 2011;36(26):E1686-93.
80. Cavalcanti DD, Martirosyan NL, Verma K, Safavi-Abbasi S, Porter RW, **Theodore N**, Sonntag VK, Dickman CA, Spetzler RF: Surgical management and outcome of schwannomas in the craniovertebral region. *J Neurosurg*. 2011;114(5):1257-67.
81. Fehlings MG, **Theodore N**, Harrop J, Maurais G, Kuntz C, Shaffrey CI, Kwon BK, Chapman J, Yee A, Tighe A, McKerracher L: A phase I/IIa clinical trial of a recombinant Rho protein antagonist in acute spinal cord injury. *J Neurotrauma*. 2011;28(5):787-96.
82. Kakarla UK, Kalani MY, Sharma GK, Sonntag VK, **Theodore N**: Surgical management of coccidioidomycosis of the spine. *J Neurosurg Spine*. 2011;15(4):441-6.

83. Kalb S, Martirosyan NL, Perez-Orribo L, Kalani MY, **Theodore N**: Analysis of demographics, risk factors, clinical presentation, and surgical treatment modalities for the ossified posterior longitudinal ligament. *Neurosurg Focus*. 2011;30(3):E11.
84. Lazaro BC, Deniz FE, Brasiliense LB, Reyes PM, Sawa AG, **Theodore N**, Sonntag VK, Crawford NR: Biomechanics of thoracic short versus long fixation after 3-column injury. *J Neurosurg Spine*. 2011;14(2):226-34.
85. Martirosyan NL, Feuerstein JS, **Theodore N**, Cavalcanti DD, Spetzler RF, Preul MC: Blood supply and vascular reactivity of the spinal cord under normal and pathological conditions. *J Neurosurg Spine*. 2011; 15(3):238-51.
86. Mortazavi MM, Dogan S, Civelek E, Tubbs N, **Theodore N**, Rekate HL, Sonntag VK: Pediatric multilevel spine injuries: An institutional experience. *Childs Nerv Syst*. 2011;27(7):1095-100.
87. Mortazavi MM, Mariwalla NR, Horn EM, Tubbs RS, **Theodore N**: Absence of MRI soft tissue abnormalities in severe spinal cord injury in children: case-based update. *Childs Nerv Syst*. 2011;27(9):1369-73.
88. Ponce FA, Killory BD, Wait SD, **Theodore N**, Dickman CA: Endoscopic resection of intrathoracic tumors: Experience with and long-term results for 26 patients. *J Neurosurg Spine*. 2011;14(3):377-81.
89. Kalb S, Martirosyan NL, Kalani MY, Broc GG, **Theodore N**: Genetics of the degenerated intervertebral disc. *World Neurosurg*. 2012;77(3-4):491-501.
90. Kalb S, Perez-Orribo L, Mahan M, **Theodore N**, Nakaji P, Bristol RE: Evaluation of operative procedures for symptomatic outcome after decompression surgery for Chiari type 1 malformation. *J Clin Neurosci*. 2012;19(9):1268-72.
91. Kalb S, Reis MT, Cowperthwaite MC, Fox DJ, Lefevre R, **Theodore N**, Papadopoulos SM, Sonntag VK: Dysphagia after anterior cervical spine surgery: incidence and risk factors. *World Neurosurg* 2012; 77(1):183-187.
92. Tumialán LM, Marciano FF, **Theodore N**: Regarding long-term results of percutaneous lumbar decompression mild for spinal stenosis. *Pain Pract*. 2012; 12(3):252.
93. Aarabi B, Hadley MN, Dhall SS, Gelb DE, Rozzelle CJ, Ryken TC, **Theodore N**, Walters BC: Management of acute traumatic central cord syndrome (ATCCS). *Neurosurgery (Suppl)*. 2013;72(3):195-204.
94. Aarabi B, Walters BC, Dhall SS, Gelb DE, Hurlbert RJ, Rozzelle CJ, Ryken TC, **Theodore N**, Hadley MN: Subaxial cervical spine injury classification systems. *Neurosurgery (Suppl)*. 2013;72(3):170-187, 2013.
95. Adogwa O, Carr RK, Kudyba K, Karikari I, Bagley CA, Gokaslan ZL, **Theodore N**, Cheng JS: Revision lumbar surgery in elderly patients with symptomatic pseudarthrosis, adjacent-segment disease, or same-level recurrent stenosis. Part 1. Two-year outcomes and clinical efficacy. *J Neurosurg Spine*. 2013;18(2):139-146.
96. Almefty KK, Turner JD, **Theodore N**: From narcotics to antibiotics: Evolving concepts in the treatment of lower back pain. *World Neurosurg*. 2013;80(5):442-443.
97. Colle KO, Butler JB, Reyes PM, Newcomb AG, **Theodore N**, Crawford NR: Biomechanical evaluation of a metal-on-metal cervical intervertebral disc prosthesis. *Spine J*. 2013;13(11):1640-9.
98. Dhall SS, Hadley MN, Aarabi B, Gelb DE, Hurlbert RJ, Rozzelle CJ, Ryken TC, **Theodore N**, Walters BC: Nutritional support after spinal cord injury. *Neurosurgery (Suppl)*. 2013;72(3):255-259.
99. Dhall SS, Hadley MN, Aarabi B, Gelb DE, Hurlbert RJ, Rozzelle CJ, Ryken TC, **Theodore N**, Walters BC: Deep venous thrombosis and thromboembolism in patients with cervical spinal cord injuries. *Neurosurgery (Suppl)*. 2013;72(3):244-254.
100. Gelb DE, Aarabi B, Dhall SS, Hurlbert RJ, Rozzelle CJ, Ryken TC, **Theodore N**, Walters BC, Hadley MN: Treatment of subaxial cervical spinal injuries. *Neurosurgery (Suppl)*. 2013;72(3):187-194.
101. Gelb DE, Hadley MN, Aarabi B, Dhall SS, Hurlbert RJ, Rozzelle CJ, Ryken TC, **Theodore N**, Walters BC: Initial closed reduction of cervical spinal fracture-dislocation injuries. *Neurosurgery (Suppl)*. 2013;72(3):73-82.
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13. **Theodore N**, Harrop JS, Maughan PH. Management of neuropathic pain and late syrinx formation. In: Vaccaro AR, Fehlings MG, Dvorak MF (eds). *Spine and Spinal Cord Trauma: Evidence-Based Management*. New York: Thieme, 2010.
14. Lochhead RA, Uschold TD, **Theodore N**. Thoracic transpedicular corpectomy. In: Jandial R, McCormick PC, Black PM (eds). *Core Techniques in Operative Neurosurgery*. Philadelphia: Elsevier Saunders; 2011: 465-473.
15. Ponce FA, **Theodore N**, Dickman CA. Thoracoscopic approaches to the spine. In: Winn HR (ed). *Youmans Neurological Surgery*. 6th Ed. Philadelphia: Elsevier; 2011: 3097-3108.
16. Baaj AA, **Theodore N**, Crawford NR. Spine biomechanics and balance of tumor reconstruction. In: Ames C, Boriani S, Jandial R (eds). *Spine and Spinal Cord Tumors*, Oxford: Taylor & Francis; 2013.
17. Martirosyan NL, Neckrysh S, Charbel FT, **Theodore N**, Lemole GM: Vascular lesions of the spinal cord. In: Vaccaro AR, Dickman CA, Cho D, Lee S, Kim I (eds). *Surgical Anatomy and Techniques to the Spine*. 2nd Ed. Philadelphia: Elsevier Saunders; 2013.
18. **Theodore N**. Biomechanics of the craniovertebral junction. In: Bambakidis NC, Dickman CA, Spetzler RF, Sonntag VKH (eds). *Surgery of the Craniovertebral Junction*. 2nd Ed. New York: Thieme, 2013: 52-62.
19. Ohnmeiss DD, Soriano-Baron H, Martinez-del-Campo E, **Theodore N**, Whitaker C: Imaging of the spine. In: Whitaker C, Hochschuler SH (eds). *The Pocket Spine*. 2nd Ed. New York: CRC Press; 2014: 17-40.
20. Oppenlander ME, Clark JC, Sonntag VKH, **Theodore N**. Pediatric craniovertebral junction trauma. In: Di Rocco C, Akalan N (eds). *Pediatric Craniovertebral Junction Diseases*. New York: Springer; 2014: 333-355.

21. Oppenlander ME, Kalyvas J, Sonntag VKH, **Theodore N**. Technical advances in pediatric craniovertebral junction surgery. In: Di Rocco C, Akalan N (eds). *Pediatric Craniovertebral Junction Diseases*. New York: Springer; 2014:201-215.
22. Kalb S, **Theodore N**. Head trauma, overview. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 531-533.
23. Kalyvas J, **Theodore N**. Lumbar spine stabilization. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 934-938.
24. Kalyvas J, **Theodore N**. Thoracic spine stabilization. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 455-459.
25. Martirosyan NL, **Theodore N**. Spinal cord transection. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 270-274.
26. **Theodore N**, Kalb S. Brain trauma, contrecoup. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 519-520.
27. Zaidi HA, Sonntag VKH, **Theodore N**. Spinal cord injury without radiographic abnormality. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 269-270.
28. Zaidi HA, **Theodore N**. Discectomy. In: Aminoff MJ, Daroff RB (eds). *Encyclopedia of Neurological Sciences*. 2nd Ed. San Diego, CA: Academic Press; 2014: 1009-1011.
29. Martinez-del-Campo E, Soriano-Baron H, **Theodore N**. Extraspinal anatomy and surgical approaches to the thoracic spine. In: Benzel E, Kuntz C, Steinmetz M (eds). *Benzel's Spine Surgery*. 4th Ed. Philadelphia: Elsevier, in press.
30. Soriano-Baron H, Martinez-del-Campo E, Neal M, **Theodore N**. Upper cervical and occipitocervical arthrodesis. In: Benzel E, Kuntz C, Steinmetz M (eds). *Benzel's Spine Surgery*. 4th Ed. Philadelphia: Elsevier, in press.
31. **Theodore N**, Soriano-Baron H. Classification and treatment of O-C1 craniocervical injuries. In: Winn HR (ed). *Youmans & Winn Neurological Surgery*. 7th Ed. Philadelphia: Elsevier.
32. **Theodore N**, Soriano-Baron H, Sonntag VKH. Anterior cervical instrumentation. In: Winn HR (ed). *Youmans & Winn Neurological Surgery*. 7th Ed. Philadelphia: Elsevier.
33. **Theodore N**. Halo vest immobilization. In: Holly L, Anderson P (eds). *Essentials of Spinal Stabilization*. New York: Springer.

Invited Book Reviews [BR]

1. **Theodore N**, Spetzler RF: Review of Alleyne CH, Citow JS (eds)..*Neurosurgery Board Review. Questions and Answers for Self-Assessment*. 2nd Ed. New York: Thieme; 2004.
2. **Theodore N**: Review of Guyer RD, Zigler JE (eds). *Spinal Arthroplasty: A New Era in Spine Care*. St. Louis, MO: Quality Medical Publ, 2005.

Editorials [ED]

1. **Theodore N** (Guest Editor): Introduction. Operative Techniques in Neurosurgery. 2004;7(1):1.
2. Kalani MYS, **Theodore N**: Personalized medicine and neurosurgery. Front Surg. 2017;4:19.

Letters, Correspondence [LT]

1. Dickman CA, **Theodore N**, Hurlbert JR, Apostolides PJ, Sonntag VK: Thoracic disc (letter). J Neurosurg. 1996;87(1):189-190.
2. **Theodore N**, Apostolides PJ, Spetzler RF: Simple risk predictions for arteriovenous malformation hemorrhage (letter). Neurosurgery. 1996;37(5):851-855.
3. Vishteh AG, **Theodore N**, Spetzler RF: Nontraumatic acute spinal subdural hematoma (letter). J Neurosurg. 2000;93(1 Suppl):180-181.
4. **Theodore N**, Lynch JJ: Calcitonin and spinal fusion (letter). J Neurosurg. 2001;94(2 Suppl):339.
5. ReKate HL, **Theodore N**: Response to Letter to Editor by Uselinski. J Neurosurg Pediatrics.2006;105:1.
6. Martirosyan NL, Kalani MYS, **Theodore N**: In reply: Intrathecal pressure after spinal cord injury. Neurosurgery. 2015;77(3):E500-1.
7. **Theodore N**: In reply: Occipitocervical fixation: A single surgeon's experience with 120 patients. Neurosurgery. 2017;80(6):E265.

FUNDING

EXTRAMURAL Funding

Current Grants

- 2013 Cerebrospinal fluid drainage and induced hypertension to improve spinal cord perfusion in acute spinal cord injury. Phase 2B randomized controlled trial
CDMRP Log Number SCI 130237, Grants.gov ID Number: GRANT11501120
DOD
\$1,653,933
Role: PI, 10%
- 2013 Oligomeric neuronal protein aggregates as biomarkers for TBI and AD
Proposal Log Number 12109023, Award Number W81XWH-12-1-0583, HRPO Log Number A-17603
CDRMP
DOD
\$27,999
PI: Michael Sierks
Role: Co-investigator, 5%
- 2014-2017 Safety and efficacy of pre-incisional intravenous ibuprofen for the treatment of postoperative pain and opioid dependence after instrumented spine surgery
Barrow Neurological Foundation
\$54,570
Role: PI

Pending Previous

- none*
- 1996-1997 A randomized, double-blind controlled trial evaluating the efficacy of a morphine-based nerve paste following lumbar decompressive surgery
Medchem Corporation
\$15,000
Role: PI, 50%
- 1997 Effects of epidural and intradural application of a morphine-based nerve paste in the rabbit model
Davol Corporation
\$15,000
Role: PI, 75%
- 1998 MRI followup of patients undergoing lumbar surgery with epidural application of a morphine-based nerve paste
Davol Corporation
\$20,000
Role: PI, 50%
- 1998 Peripheral nerve grafting for complete spinal cord injury in the primate
North American Spine Society
\$48,622.32
Role: PI, 25%
- 1999 Biomechanical effects of laminoplasty, laminectomy, and discectomy: Stenosis and stability
North American Spine Society
\$24,432
Role: PI, 25%
- 1999 Evaluation of 2-octylcyanoacrylate in spinal surgery
Ethicon Corporation
\$24,000

Role: PI, 25%

2003 Evaluation of high viscosity dermabond for long incisions
Ethicon Corporation
\$25,000
Role: PI, 10%

2006-2009 A computerized planning tool for spine surgery
1 R01 EB006135-04
NIH
\$515,227
PI: Neil R. Crawford
Role: Co-investigator, 10%

2007 Development of an image-guided surgical robot
Barrow Neurological Institute and St. Joseph's Hospital and Medical Center
\$600,000
Role: PI, 25%

2008 Cerebrospinal fluid drainage for the treatment of acute spinal cord injury
Charles Maddock Foundation
\$25,000
Role: PI, 25%

2010 Cerebrospinal fluid drainage for the treatment of acute spinal cord injury
Barrow Neurological Foundation
\$80,000
Role: PI, 25%

2010-2013 A computerized planning tool for spine surgery
1 R01 EB006135-01
NIH
\$1,200,000
PI: Neil R. Crawford
Role: Co-investigator, 10%

2013-2014 Establishment of Beverly & Millard Seldin Family Disk and Spinal Regeneration Laboratory at the
Barrow Neurological Institute
Number
\$500,000
Role: PI, 15%

Educational Extramural Funding

Previous

2010 Development of an interactive educational tool for traumatic brain injury: BrainBook®
Charles Maddock Foundation. The BrainBook® is the largest online interactive concussion education program, the completion of which is now mandatory for high school athletes in the state of Arizona.
\$250,000
Role: PI, 5%

INTRAMURAL Funding None

Research Intramural Funding
Educational Intramural Funding
Clinical Intramural Funding
System Innovation or Quality Improvement Intramural Funding
Other Intramural Funding

CLINICAL ACTIVITIES

Clinical Focus

My primary clinical interests include traumatic brain and spinal injuries, spinal cord pathophysiology, surgical innovation, and robotics. This includes (but is not limited to):

- Spinal cord pathophysiology
- Spinal disorders
- Spinal trauma
- Spinal cord injury
- Traumatic brain injury
- Tethered cord syndrome
- Genetics of spinal disorders
- Disk regeneration

CERTIFICATION

Medical, other state/government licensure

1993-present California #G077727

1998-present Arizona #26829

2016-present Maryland #D81128

Boards, other specialty certification

7/92 Diplomate, National Board of Medical Examiners

4/95 Written Boards, American Board of Neurological Surgery

11/04 Diplomate, American Board of Neurological Surgery (recertification 2014)

11/04 Fellow, American Board of Neurological Surgery

10/06 Fellow, American College of Surgeons

Clinical (Service) Responsibilities

2001-2003 Staff Neurosurgeon, Naval Medical Center, San Diego

2003-2010 Pediatric Neurosurgery CRS Clinic, Phoenix, Arizona; 1 day/week

2003-2016 Spine Clinic/General Neurosurgery Clinic, Barrow Neurological Institute; 2 days/week

2005-2015 Consultant Neurosurgeon, Phoenix Veterans Administration Medical Center

Clinical Productivity

7/15-7/16 2,500 Patient visits

575 Surgical cases

33,000 RVUs

Clinical Draw from outside local/regional area

7/15-7/16 20% of patients were from outside the state of Arizona

5% of patients were from international destinations

Large patient following in Mexico

Membership in or examiner for specialty board

2004-present Fellow, American Board of Neurological Surgeons (Primary certification in 2004; recertification in 2013)

2006-present Fellow, American College of Surgeons

2011-present Medical Director & Member, Board of Directors, Think First National Injury Prevention Program 2013-

2015 President, Board of Directors, Think First National Injury Prevention Program

2014 Guest Examiner, American Board of Neurological Surgeons

Clinical Program Building/Leadership

2003-2016 Director, Neurotrauma Program, Barrow Neurological Institute

Director of multidisciplinary program encompassing acute clinical care, rehabilitation, outpatient care, and research endeavors. Coordinated spinal cord injury research sponsored by the Department of Defense. Obtained Joint Commission Center of Excellence Certification in Traumatic Brain Injury and Spinal Cord Injury in 2015, making Barrow Neurological Institute the only institution in the U.S. to have garnered both awards.

2005-2016 Associate Director, Neurosurgical Residency Program

Co-direction of day-to-day operations of the largest neurosurgery residency program in the U.S. Performed ongoing evaluation, and assessment of 28 residents, as well as developing curriculum for the group. Responsible for development of the educational program and assessment and improvement of program quality.

2010-2016 Chief, Spine Section, Barrow Neurological Institute
Director of the busiest clinical section at Barrow Neurological Institute. Responsible for program development, ongoing evaluation, and quality assessment for 15 neurosurgeons. Oversaw clinical and basic science research efforts, clinical operations, and education for the spine section.

Clinical Demonstration Activities to external audience, on or off campus

2003 Barrow Neurological Institute Annual Symposium—Spinal surgery demonstration
2005 Barrow Neurological Institute Annual Symposium—Spinal navigation demonstration
2007 Barrow Neurological Institute Annual Symposium—Cranio-cervical junction technique demonstration
2009 Barrow Neurological Institute Annual Symposium—Spinal techniques for trauma demonstration
2011 Barrow Neurological Institute Annual Symposium—Image guided spinal surgery demonstration
2013 Barrow Neurological Institute Annual Symposium—Live surgery demonstration of C1-2 fxsp

Development of nationally/internationally recognized clinical standard of care

2015 Director of Neurotrauma Program at Barrow Neurological Institute and developed programs leading to Joint Commission Certification as a Center of Excellence in both the specialties of Traumatic Brain Injury and Spinal Cord Injury. Barrow Neurological Institute was the only center in the country that held certifications in both specialties. During this time, I was also recognized nationally for clinical care of patients afflicted with coccidioidomycosis of the spine, spinal cord, or brain.

EDUCATIONAL ACTIVITIES

Educational Focus

Throughout my career, my education focus has been on resident and medical student training in the diagnosis and treatment of spinal disorders of all types.

Teaching

Classroom instruction

2008-2016 Twice-weekly didactic teaching rounds with the residents including case review, patient selection, surgical planning, management of intra- and postoperative complications, and follow-up care for all spine patients.

Clinical instruction

CME instruction

Regional

10/06 Role: Lecturer. Cervical Spine Injuries Course: "I recommend anterior fixation." An Interactive Spine Course Focusing on Contemporary Surgical Techniques in Spine trauma. Medtronic, Scottsdale, AZ
10/06 Role: Lecturer. Central Cord Injury Course: "I recommend late surgery." An Interactive Spine Course focusing on Contemporary Surgical Techniques in Spine trauma. Medtronic, Scottsdale, AZ
10/06 Role: Lecturer. Managing complications in cervical trauma. An Interactive Spine Course focusing on Contemporary Surgical Techniques in Spine trauma. Medtronic, Scottsdale, AZ
2009 Role: Debate participant. Minimally invasive posterior cervical decompression and/or stabilization. Cervico-Thoracic Symposium: Solutions to Complex Cases, Stryker Spine, Phoenix, AZ
10/09 Role: Lecturer. Cervico-thoracic trauma: Cervico-Thoracic Symposium: Solutions to Complex Cases. Stryker Spine, Phoenix, AZ

National

3/05 Role: Lecturer. Degenerative lumbar spine. Treatment options: Operative and nonoperative. AO ASIF Fundamentals of Spine Surgery for Residents and Fellows, Renaissance Las Vegas Hotel, Las Vegas, NV
6/05 Role: Lecturer. Management of posttraumatic deformity. AO ASIF Controversies in Spine Trauma Symposium, Coronado Island Marriott Resort, Coronado, CA

- 6/05 Role: Lecturer. Occipitocervical fixation C1-C2 lateral mass fixation. AO ASIF Controversies in Spine Trauma Symposium, Coronado Island Marriott Resort, Coronado, CA
- 6/05 Role: Lecturer. Central cord syndrome. AO ASIF Controversies in Spine Trauma Symposium, Coronado Island Marriott Resort, Coronado, CA
- 2/06 Role: Lecturer. Lower cervical spine trauma. AO ASIF Advanced Concepts in the Management of Spinal Disorders. Sun Valley, ID
- 2/07 Role: Lecturer. Thoracolumbar trauma. Advanced Concepts in the Management of Spinal Disorders. AOSpine North America Sun Valley Resort, Sun Valley, ID
- 2/07 Role: Lecturer. Injuries with neurological deficits. Is there a role for emergent decompression? AOSpine North America Sun Valley Resort, Sun Valley, ID
- 2/07 Role: Lecturer. Is there a need for bracing following internal fixation of thoracolumbar fractures? AOSpine North America Sun Valley Resort, Sun Valley, ID
- 4/07 Theodore N: Occipitocervical injuries and treatment. Advanced Techniques in Treating Spinal Trauma, Ft. Lauderdale, FL
- 4/07 Theodore N: Advances in the treatment of traumatic spinal injuries. Advanced Techniques in Treating Spinal Trauma, Ft. Lauderdale, FL
- 6/07 Theodore N: Thoroscopic corpectomy: Neumann Expandable cages for deformity applications. Advanced Techniques for the Instrumentation of the Thoracolumbar Spine after Vertebrectomy in Tumor and Trauma. Bellagio Hotel, Las Vegas, NV
- 6/07 Role: Lecturer. How to work with industry. Stryker Spine's 3rd Annual Incoming Fellows Boot Camp, Las Vegas
- 11/07 Role: Lecturer. Thoracolumbar trauma: Classification/pathomechanics. Excellence in Spine. Principles and treatment of spinal disorders for residents and fellows. AOSPINE North America, Red Rock Resort, Las Vegas
- 11/07 Role: Lecturer. Degenerative lumbar spine: Non-operative treatment options. Excellence in Spine. Principles and treatment of spinal disorders for residents and fellows. AOSPINE North America, Red Rock Resort, Las Vegas
- 5/08 Role: Lecturer. The ten commandments of spine trauma. 4th Annual Incoming Fellows Boot Camp (Stryker), Las Vegas, NV
- 11/15 Role: Lecturer. Rational use of methylprednisolone in SCI. AONeuro Course – Controversies in Neurotrauma: Brain and Spinal Cord, Pittsburgh, PA
- 11/15 Role: Lecturer. Neurotrauma prevention strategies. AONeuro Course – Controversies in Neurotrauma: Brain and Spinal Cord, Pittsburgh, PA
- 11/15 Role: Lecturer. Blood pressure management and spinal cord perfusion. AONeuro Course – Controversies in Neurotrauma: Brain and Spinal Cord, Pittsburgh, PA
- 3/17 Role: Lecturer. Navigation—Thoracolumbar trauma step-by-step. Hands-on Spinal Navigation course. Spine Summit 2017–33rd Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Las Vegas, NV

International

- 8/17 Role: Lecturer. [Complex cases in spinal column surgery: Pearls and pitfalls.] XXIV Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico
- 8/17 Role: Lecturer. [Robotic surgery of the spinal cord.] XXIV Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico
- 8/17 Role: Lecturer. [The circumferential approach: Is it really necessary?] XXIV Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico
- 8/17 Role: Lecturer. [Actual treatment of medullary lesions.] XXIV Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico

Workshops/seminars

JHMI/Regional

- 9/11 Role: Lecturer. Posterior cervical instrumentation (Lateral mass C1-2, translaminar, occipito-cervical). Johns Hopkins University Spine Workshop, Baltimore, MD
- 2/14 Theodore N: Spine tumors. 2014 DePuy Synthes Spine FUTURE LEADERS Workshop: Decision Making and Treatment Options for Spine Tumors. Barrow Neurological Institute, Phoenix, AZ
- 2/14 Theodore N: Complication avoidance: Illustrative cases. 2014 DePuy Synthes Spine FUTURE LEADERS Workshop: Decision Making and Treatment Options for Spine Tumors. Barrow Neurological Institute, Phoenix
- 5/17 Theodore N: Spine surgery and pain management. Advanced Clinical Topics in Neuroscience Nursing Workshop. The Institute for Johns Hopkins Nursing, Baltimore, MD

Mentoring

Advisees

Research Fellows:

- 2007-2015 Sam Safavi-Abbasi, MD. Received Resident/Fellow award at American Association of Neurological Surgeons for oral presentation: The road to understanding of tethered spinal cord syndrome (2012).
- 2008-2010 Martin Mortazavi, MD. Received Synthes award for resident research on spinal cord and spinal column injury (2009).
- 2010-2016 Nikolay L. Martirosyan, MD. Received Synthes award for resident research (2009). Received second place award for presentation: Manganese-enhanced MRI tracing to detect spinal cord injury at St. Joseph's Hospital Academic Excellence Day (2009). Received John Green Award from the Arizona Neurosurgical Society (2012). Received Mayfield award from Congress of Neurological Surgeons/American Association of Neurological Surgeons (2014).
- 2011-2016 Samuel Kalb, MD. Received first place award for presentation: Cervical cord infarction after decompressive spinal surgery at St. Joseph's Hospital Academic Excellence Day (2011). Awarded best oral presentation: Impact of systemic hypertension on MRI signal cord change and clinical outcome of patients with cervical stenosis (2012).
- 2014-present Eduardo Martinez-Del-Campo, MD. Awarded research grant from Globus Medical, Inc. (2014). Awarded AO Spine scholarship (2014).

Spine Fellows:

- 7/1/03-10/31/03 Eric Horn, MD, PhD, Spine Neurotrauma. Currently practicing at University of Indiana in Indianapolis IN.
- 1/1/06-2/28/06 Pankaj Gore, MD, Spine Trauma. Currently practicing at Oregon Clinic in Portland OR.
- 5/1/07-7/31/07 Udaya Kumar Kakarla, MD, Spine Trauma. Currently practicing at Barrow Neurological Institute in Phoenix AZ
- 4/14/08-6/15/08 Peter Maughan, MD, Spine Trauma. Currently practicing at Neurosurgical Associates in Salt Lake City UT
- 1/1/10-3/31/10 Richard Lochhead, MD, Complex Spine. Currently practicing at Idaho Neuroscience Associates in Boise ID.
- 7/1/10-9/30/10 David Fusco, MD, Complex Spine. Currently practicing at Barrow Neurological Institute in Phoenix AZ
- 8/3/10-10/1/10 Rasha Germain, MD, Complex Spine and Trauma. Currently practicing at Annadel Medical Group in Spokane WA
- 10/1/10-11/30/10 Giacomo Consiglieri, MD, Spine Trauma. Currently practicing at Annadel Medical Group in Spokane WA
- 10/1/10-12/31/10 Justin C. Clark, MD, Complex Spine. Currently practicing at Great Lakes Neurosurgical Associates in Grand Rapids MI
- 1/1/11-3/31/11 Katherine Cronk, MD, PhD, Complex Spine and Trauma. Currently practicing at New England Neurological Associates in Lawrence MA
- 3/1/11-3/31/11 Mark Garrett, MD, Spine Trauma. Currently practicing at Barrow Neurological Institute in Phoenix AZ
- 7/1/11-11/1/11 Mark E. Oppenlander, MD, Complex Spine. Currently University of Michigan in Ann Arbor MI
- 6/1/12-6/30/12 Timothy D. Uschold, MD, Spine Trauma. Currently practicing at Southern Oregon Neurosurgical and Spine Associates in Medford OR
- 1/1/14-6/30/14 James Kalyvas, MD, Complex Spine & Deformity. Currently practicing at Ochsner Clinic in New Orleans LA

Thesis committees None

Educational Program Building / Leadership None

Educational Demonstration Activities to external audiences, on or off campus None

RESEARCH ACTIVITIES

Research Focus

The main foci of my research include traumatic brain and spinal injuries, spinal cord pathophysiology, spinal disorders, tethered cord syndrome, genetics of spinal disorders, disk regeneration, surgical innovation, and robotics.

Research Program Building/Leadership

- 2000-2005 Young Neurosurgeons Committee of American Association of Neurological Surgeons (AANS). As a member of this committee, I was responsible for increasing awareness about and participation in AANS.
- 2003-2008 Digital Technology Committee, American Association of Neurological Surgeons.
During my time on the Digital Technology Committee, I contributed to establishing industry guidelines and evaluating new neurosurgical technologies.
- 2005-present Arizona Governor's Council on Head and Spinal Cord Injuries
As a member of this council, I participated in the formulation of policy, education, and awareness on issues related to traumatic brain and spinal cord injury.
- 2006-2010 Member-at-Large, Medical Executive Committee, St. Joseph's Hospital and Medical Center
My contributions to the Medical Executive Committee included evaluation and formulation of medical staff policies and procedures for the hospital.
- 2009-present Physicians Clinical Council, St. Joseph's Hospital and Medical Center
As a member of the Physicians Clinical Council, I have served on a panel of counselors to the President of the hospital and participated in reviewing policies, strategic planning and issues affecting medical staff.
- 2011-present Medical Director & Member, Board of Directors, Think First National Injury Prevention Program
As both the Medical Director and a member of this program, I have been responsible for reviewing and developing national educational programs related to traumatic brain and spinal cord injury.
- 2013-present President, Board of Directors, Think First National Injury Prevention Program
As the President of the Board of Directors, my primary role is to oversee an international organization that provides educational programs. I have been responsible for budgeting, fundraising, outreach, and public relations as well as content development and review.

Research Demonstration Activities to external audience

Inventions, Patents, Copyrights

- 7/17/01 Needham CW, Hurlbert RJ, **Theodore N**, Sonntag VKH: Surgical method and composition therefor. #6,261,582
- 7/17/01 Needham CW, Hurlbert RJ, **Theodore N**, Sonntag VKH: Surgical method and composition therefor. #6,261,582,B1
- 8/30/11 Smith DW, Desanctis-Smith R, Pitt AM, **Theodore N**, Crawford N: System utilizing radio frequency signals for tracking and improving navigation of slender instruments during insertion in the body. #8,010,181
- 8/30/11 Smith DW, Desanctis-Smith R, Pitt AM, **Theodore N**, Crawford, N: System utilizing radio frequency signals for tracking and improving navigation of slender instruments during insertion in the body. #8,010,181,B2
- 7/10/12 Smith DW, Desanctis-Smith R, Pitt AM, **Theodore N**, Crawford NR: Method and system for performing invasive medical procedures using a surgical robot. #8,219,177
- 7/10/12 Smith DW, Desanctis-Smith R, Pitt AM, **Theodore N**, Crawford NR: Method and system for performing invasive medical procedures using a surgical robot. #8,219,178
- 7/10/12 Smith DW, Desanctis-Smith R, Pitt AM, **Theodore N**, Crawford NR: Method and system for performing invasive medical procedures using a surgical robot. #8,219,177,B2
- 7/10/12 Smith DW, Desanctis-Smith R, Pitt AM, **Theodore N**, Crawford NR: Method and system for performing invasive medical procedures using a surgical robot. #8,219,178,B2
- 10/15/13 Dube MA, Marciano F, Porter R, **Theodore N**, Truumees E, McDonnell C, Justin DF, Lewis CW: System plating and method for vertebral body plating. #8,556,944,B2
- 3/10/15 Sawa AGU, Baek S, Crawford NR, Reyes PM, Safavi-Abbasi, **Theodore N**: Venting/pressure. Adjustment to aid in delivery of material into an anatomic region via a cannula. #8,974,505,B2

Technology Transfer Activities

- 2004-2006 Founder and Chief Medical Officer, Excelsius Surgical. Image-guided surgical robot with total body

applications. Company was acquired by Globus Medical in Dec 2014 and device will be commercialized in Q1 2017. Still actively involved in a consulting role.

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

System Innovation and Quality Improvement Program Building/Leadership

2015 As Director of the Neurotrauma Program at the Barrow Neurological Institute, I established an innovative multidisciplinary program that resulted in Joint Commission Center of Excellence Certification in both Traumatic Brain Injury and Spinal Cord Injury, making Barrow Neurological Institute the only institution in the United States to have both awards.

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

2003-2016 Neurosurgery Section, Barrow Neurological Institute, Phoenix AZ. Reviewed Departmental policies and procedures for the neurosurgical group at Barrow Neurological Institute.

2006-2010 Member-at-Large, Medical Executive Committee, St. Joseph's Hospital and Medical Center, Phoenix AZ. My contributions to the Medical Executive Committee included evaluation and formulation of medical staff policies and procedures for the hospital.

2009-2013 Physicians Clinical Council, St. Joseph's Hospital and Medical Center, Phoenix AZ. As a member of the Physicians Clinical Council, I served on a panel of counselors to the President of the hospital and participated in reviewing policies, strategic planning, and medical staff issues.

2009-2016 Co-Director, Neurosurgery Morbidity and Mortality Conference, Barrow Neurological Institute, Phoenix, AZ. Coordinated and ran monthly quality improvement meetings.

Editorial Activities

Editorial Board Appointments

1998-present *Neurosurgery*, assistant editor

Journal Reviewer

1998 *Operative Techniques in Neurosurgery*, guest editor December 1998 issue

2004 *Operative Techniques in Neurosurgery*, guest editor March 2004 issue

2009-present *Neurosurgery*, ad hoc reviewer

2010-present *Journal of Spinal Disorders and Techniques*, ad hoc reviewer

2013-present *New England Journal of Medicine*, ad hoc reviewer

Advisory Committees, Review Groups/Study Sections

4/14 Member, Committee of Applicants, American College of Surgeons

6/17 Member, Johns Hopkins Musculoskeletal Leadership Group

6/17 Member, Johns Hopkins Neurosurgery OR Committee

6/17 Member, Johns Hopkins Neurosurgery PPE Steering Committee

Professional Societies

AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves

AANS/CNS Joint Section on Neurotrauma

American Academy of Neurological Surgery (elected 2010)

American Association of Neurological Surgeons

American College of Surgeons

American Medical Association

Arizona Neurosurgical Society

Association of Military Surgeons of the United States

Congress of Neurological Surgeons, Resident Member

Queen Square Alumnus Association

Society of Neurological Surgeons (elected 2011)

Society of University Neurosurgeons (elected 2012)

Conference Organizer, Session Chair

3/8/07 Moderator: Oral presentations I. Neurosurgery and Spine: A Vital Synergy. JW Marriott Desert Ridge

- Resort, Phoenix, AZ
- 4/12-13/08 Co-Chairman and Moderator of the Controversies in Spine Trauma Symposium. AOSpine North America, Baltimore, MD
- 9/20-25/08 Moderator: Anterior vs. Posterior for Cervical Radiculopathy. 58th Annual Meeting of Congress of Neurological Surgeons, Orlando, FL
- 10/16-21/10 Moderator: Spine Trauma and Spinal Cord Injury. 60th Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 10/2-6/13 Moderator: Microsurgical Management of Complex Vascular and Tumor Lesions. Moscone Center, San Francisco, CA
- 10/5/13 Moderator: ZEISS luncheon symposium. 63rd Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 4/5-9/14 Moderator: Pharmacophysiology of Bone Fusion. 2014 AANS Annual Scientific Meeting, Moscone Center, San Francisco, CA
- 3/5/15 Moderator: Achieving Sagittal Balance. Open vs. MIS vs. Lateral. Globus Medical, Grand Ballroom A, Scottsdale, AZ
- 5/6/15 Moderator: Current Use of Biologic Graft Extenders for Spinal Fusion. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 8/7/15 Moderator: Spinal Cord Injury and Regenerative Therapies. Annual Musculoskeletal Education and Research Center Symposium, Audubon, PA
- 11/5-7/15 Co-Chairman and Moderator: Controversies in Neurotrauma: Brain and Spinal Cord. AONeuro, Pittsburgh, PA
- 4/17 Moderator: International Symposium. 85th Annual Meeting of American Association of Neurological Surgeons, Los Angeles, CA
- 8/26/17 Moderator: History of Robotics in Medicine. 4th Annual Musculoskeletal Education and Research Center Symposium, Audubon, PA

Consultantships

- 1999-2005 Codman Neuro, Consultant, Education
- 2003-2013 Depuy Synthes, Consultant, Product Development
- 2014-2016 Globus Medical, Consultant, Product Development, Education

RECOGNITION

Awards, Honors

- 1981 National Forensic League, National Debate Championships. 4th place
- 1983-1984 Cornell Tradition Academic Fellow, Cornell University, Ithaca, NY
- 12/91 Alpha Omega Alpha, Georgetown University
- 12/93 Navy Achievement Medal, Fleet Marine Force, Okinawa, Japan
- 6/94 Neil Holland Award, National Naval Medical Center
- 10/98 Outstanding Paper Award, North American Spine Society
- 10/98 Research Grant Award, North American Spine Society
- 10/98 Ronald Tasker Award, Pain Section, Congress of Neurological Surgeons
- 2/99 Mayfield Clinical Research Award, Section on Disorders of the Spine and Peripheral Nerves of AANS/CNS
- 10/99 Research Grant Award, North American Spine Society
- 6/00 Resident Research Award, Rocky Mountain Neurosurgical Society
- 12/00 Outstanding Paper Award, 2nd Place Arizona Neurosurgical Society
- 3/01 Outstanding Paper Award, Barrow Neurological Institute Symposium
- 3/02 Outstanding Poster Presentation, Academic Research Competition, Naval Medical Center San Diego, CA
- 5/03 Outstanding Presentation, "Advances in the Treatment of Spinal Disorders," Coronado Rotary Club, Coronado, CA
- 10/04 American Paraplegia Society, Top 5 Platform Presentation, Theodore N, Horn EM, Sonntag VK: Early Decompressive Surgery for Acute Spinal Cord Injury. Arizona Neurosurgical Society, John Green Resident Award Paper, 1st Place, (Iman Feiz-Erfan, MD) Incidence and Pattern of Neurovascular Injury Associated with Trauma to the Skull Base
- 5/05 Navy and Marine Corps Commendation Medal, Naval Medical Center San Diego, CA
- 6/07 Timothy Harrington Neurological Surgery Teacher of the Year, Barrow Neurological Institute, Phoenix

- 5/09 Synthes Resident Spine Award, Mortazavi M, Hom D, Martirosyan N, Kushchayev S, Want W, Verma K, Theodore N, Sonntag VKH, Panitch A, Preul MC: Using hyaluronic acid as a scaffold to promote spinal cord regeneration. AANS Annual Meeting, San Diego, CA
- 5/09 Academic Excellence Day 2009. Research 2nd Prize: Martirosyan N, Bennet K, Theodore N, Preul M: BNI Neurosurgery Spine Research Division: Manganese-enhanced MRI tracing for spinal cord injury studies
- 10/12 Arizona Neurosurgical Society, John Green Resident Award Paper, 1st Place, (Nikolay Martirosyan) Cerebrospinal fluid drainage and increased mean arterial blood pressure improve outcome after spinal cord injury
- 4/13 NREF/Biomet Microfixation Research Fellow: Degradable local analgesic Devices for targeted pain management and improved surgical success. Neurosurgery Research & Education Foundation Awards
- 6/13 Timothy Harrington Neurological Surgery Teacher of the Year, Barrow Neurological Institute, Phoenix
- 2/14 Mayfield Basic Science Research Award, Section on Disorders of the Spine and Peripheral Nerves of AANS/CNS

Invited Talks, Panels

Regional

- 9/96 Theodore N: Neurosurgical implications of pregnancy. Grand Rounds, Barrow Neurological Institute, Phoenix
- 2/00 Theodore N, Sullivan C: Neurosurgical infectious diseases of the Southwest. BNI Nursing Symposium, Neuroscience Nursing Partnership: Shaping the Future, Barrow Neurological Institute, Phoenix, AZ
- 3/00 Theodore N: MRI follow-up of patients undergoing lumbar surgery with epidural application of a morphine-based nerve paste. 26th Annual BNI Symposium, Phoenix, AZ
- 3/00 Theodore N: Occipitocervical fusion in a pediatric population: Long-term follow-up and detailed osteometric analysis. 26th Annual BNI Symposium, Phoenix, AZ
- 3/00 Dickman CA, Theodore N: Complete spondylectomy for excision of spinal neoplasms. 26th Annual BNI Symposium, Phoenix, AZ
- 3/01 Theodore N: Frontiers in spinal cord regeneration. St. Joseph's Hospital Spinal Cord Injury Committee, Phoenix
- 5/01 Theodore N: The future of spinal surgery. BNI Nursing Symposium, Neuroscience Nursing Partnership: Shaping the Future, Barrow Neurological Institute, Phoenix, AZ
- 3/04 Theodore N: Neurotrauma in the 21st century. Barrow Neurological Institute, 30th Annual Symposia, Breakthroughs in Neuroscience, Phoenix, AZ
- 3/04 Theodore N: Neurotrauma: Basic steps to star-wars technology. Scottsdale Healthcare First Annual Trauma Conference, What's Known...What's New, Scottsdale, AZ
- 4/04 Theodore N: Acute management of TBI. 2004 Traumatic Brain Injury Symposium, Barrow Neurological Institute, Phoenix, AZ
- 10/04 Feiz-Erfan I, Horn E, Zabramski JM, N Theodore N: Incidence and pattern of neurovascular injury associated with trauma to the skull base (Recipient John Green Award). Arizona Neurosurg Soc Fall Meeting, Tucson AZ
- 10/04 Theodore N: Schmoozing into Research: Spinal cord injury. Getting to Know Me Fifth Annual Southwest Spinal Cord Injury Educational Conference, Phoenix Airport Marriott, Phoenix, AZ
- 11/04 Feiz-Erfan I, Horn E, Zabramski JM, N Theodore N: Incidence and pattern of neurovascular injury associated with trauma to the skull base: The MacDonald Wood Resident Essay Award, Annual Meeting of Arizona Chapter of ACS, SW Regional Trauma Meeting, Sheraton, Tucson, AZ
- 11/04 Theodore N: Review of neurosurgical care of TBI patients: Do's and don'ts. Neuropsychological and Neurosurgical Collaboration in the treatment of TBI Patients. 2nd World Congress of the Academy of Multidisciplinary Neurotraumatology, Barrow Neurological Institute, Phoenix, AZ
- 1/05 Theodore N: Applying public health approaches in Arizona. Public Health Approaches to Reducing Gun Violence, Barrow Neurological Institute, Phoenix, AZ
- 2/05 Theodore N: Management of acute traumatic brain injury. "February in Phoenix" Trauma Symposium, St. Joseph's Hospital and Medical Center, Level 1 Trauma Center, Black Canyon Conference Center, Phoenix, AZ
- 3/05 Theodore N: Neurotrauma: What works? Current concepts and future directions. 31st Annual Barrow Symposium, Advances in Neuroscience for The Practicing Neurosurgeon And Neurologist. Barrow Neurological Institute, Phoenix, AZ
- 3/05 Theodore N: Stump the Pro Case Studies. 2005 Scottsdale Healthcare Trauma Conference: Focus on trauma: Dynamic Control of Trauma Uncertainty, Scottsdale, AZ
- 4/05 Theodore N: Acute management of TBI. 2nd Annual Traumatic Brain Injury Symposium, Barrow Neurological Institute, Phoenix, AZ

- 06/05 Theodore N: Neurotrauma 205: Current concepts and future directions. Grand Rounds, Barrow Neurological Institute, Phoenix, AZ
- 8/05 Theodore N: Serious head injuries in children. Pediatric Neuroscience Grand Rounds, St. Joseph's Hospital and Medical Center, Phoenix, AZ
- 9/05 Theodore N: Management of acute traumatic brain injury. 2005 Barrow Nursing Symposium, Achieving Excellence in Neuroscience Nursing, Phoenix, AZ
- 3/06 Theodore N: Neurotrauma in the 21st Century: From Ben Casey to Star Wars. Barrow Neurological Symposium, Phoenix, AZ
- 5/06 Theodore N: Case studies in traumatic brain injury. 3rd Annual Traumatic Brain Injury Symposium, Barrow Neurological Institute, Phoenix, AZ
- 6/06 Theodore N: Spinal surgery: Tomorrow's future, here today. 8th Annual Grand Canyon Coders Seminar, "On Track to Coding," Scottsdale, AZ
- 9/06 Theodore N: Spinal cord injury: Current management and future directions. Surgical Grand Rounds, Banner Good Samaritan Medical Center, Phoenix, AZ
- 9/06 Theodore N: Case studies in the spinal cord injury patient. 2006 Barrow Neurotrauma Symposium, Phoenix, AZ
- 9/06 Theodore N, Sullivan C: Case studies in traumatic brain injury. 2006 Barrow Neurotrauma Symposium, Phoenix
- 3/07 Theodore N: Advances in the Treatment of Traumatic Spinal Injuries. 33rd Annual Barrow Symposium, Phoenix
- 3/07 Theodore N: Complete thoracolumbar spondylectomy for tumor resection and reconstruction. Advanced Techniques in Treating Spinal Tumors, Barrow Neurological Institute, Phoenix, AZ
- 6/07 Theodore N: Update in NeuroTrauma. Neuroscience Grand Rounds, Leonard Goldman Auditorium, St. Joseph's Hospital and Medical Center, Phoenix, AZ
- 10/07 Theodore N, Sullivan C: Don't lose your head: Occipitocervical trauma – mechanisms, diagnosis and treatment. 2007 Barrow Nursing Symposium, Barrow Neurological Institute, Phoenix, AZ
- 10/07 Theodore N: Deformity and tumors: Jump Start Resident Program Craniocervical Course, Barrow Neurological Institute, Phoenix, AZ
- 10/07 Theodore N: "Bench to bedside and bedside to bench" – Foundation Education, Barrow Neurological Institute, Phoenix, AZ
- 11/07 Theodore N, Gale SD: Current management and future directions in the treatment of acute traumatic brain injury. National Academy of Neuropsychology, The Westin Kierland Resort and Spa, Scottsdale, AZ
- 1/08 Theodore N: SCI Cases. 2nd Annual Neurotrauma Symposium: Current Management in Acute Care and Rehabilitation. Barrow Neurological Institute, Phoenix, AZ
- 1/08 Theodore N: Welcome/Course Overview. 2nd Annual Neurotrauma Symposium: Current Management in Acute Care and Rehabilitation. Barrow Neurological Institute, Phoenix, AZ
- 1/08 Theodore N: Spinal cord injury: Current concepts and future directions. 2nd Annual Neurotrauma Symposium: Current Management in Acute Care and Rehabilitation. Barrow Neurological Institute, Phoenix, AZ
- 1/08 Kakarla K, Maroon J, Theodore N: Neurotrauma case studies: You make the call. 2nd Annual Neurotrauma Symposium: Current Management in Acute Care and Rehabilitation. Barrow Neurological Institute, Phoenix, AZ
- 2/08 Theodore N, Maughan P: Neurotrauma imaging. "February in Phoenix" Trauma symposium. Black Canyon Conference Center, Phoenix, AZ
- 2/08 Theodore N, Chang S: Management of pediatric spine injuries. "February in Phoenix" Trauma symposium. Black Canyon Conference Center, Phoenix, AZ
- 2/08 Theodore N (speaker): Benefits of spinal research for patients. Caring for the Health of Our Community, The Women's Board of the Barrow Neurological Foundation Education Day, Phoenix, AZ
- 3/08 Theodore N: Advances in spinal trauma—Are we better than Ben Casey? 34th Annual Barrow Symposium, Advancements in Neuroscience for the Practicing Neurosurgeon and Neurologist, Barrow Neurological Institute, Phoenix, AZ
- 3/08 Theodore N: When is combined anterior/posterior approach needed. Complex Surgical Techniques in Treating Cervical Spine Pathology, Barrow Neurological Institute, Phoenix, AZ
- 3/08 Theodore N: Cervicothoracic instability: treatment concerns. Complex Surgical Techniques in Treating Cervical Spine Pathology, Barrow Neurological Institute, Phoenix, AZ
- 2010 Theodore N, Kwasnica CM, McLeod TC: Prevention of TBI. 5th Annual Traumatic Brain Injury Symposium, Barrow Neurological Institute, Phoenix, AZ
- 2010 Theodore N, Chico J: International patients and global engagement. Women's Board Education Day, Barrow Neurological Institute, Phoenix, AZ
- 3/10 Theodore N: Spinal Therapeutics: Hype vs. Hope. 36th Annual Barrow Neurosurgery Symposium, Phoenix, AZ

- 3/10 Theodore N, Kakarla K: Optional spine case presentations. 36th Annual Barrow Neurosurgery Symposium, Phoenix, AZ
- 3/10 Theodore N: Optional Live Surgery. 36th Annual Barrow Neurosurgery Symposium, Phoenix, AZ
- 3/10 Theodore N: The back. The Salons, St. Joseph's Hospital and Medical Center, Barrow Neurological Institute, Phoenix, AZ
- 10/10 Theodore N: "Doc, I want to walk again," Management of Acute SCI. 2010 Barrow Nursing Symposium: Patient problems – optimizing outcomes. Barrow Neurological Institute, Phoenix, AZ
- 11/10 Cronk K (Theodore N): John Green Award: Procalcitonin as an early marker for postoperative infection for cases of elective spine surgery. Arizona Neurosurgical Society, Marana, AZ
- 2011 Theodore N: Historical overview of acute SCI management. 2011 Barrow Spinal Cord Injury Symposium, Barrow Neurological Institute, Phoenix, AZ
- 3/11 Theodore N: Correction of cervical spinal deformities. 37th Annual Barrow Neurosurgery Symposium, Barrow Neurological Institute, Phoenix, AZ
- 3/11 Theodore N: Techniques of occipito-/posterior cervical fixation. 37th Annual Barrow Neurosurgery Symposium, Barrow Neurological Institute, Phoenix, AZ
- 11/11 Theodore N: Spinal reconstruction for complex extradural spinal tumor. Barrow Neurological Institute Brain Tumor Symposium, Scottsdale, AZ
- 11/11 Theodore N: Management of TBI: Past, present and future. Barrow Neurological Institute Nursing Symposium, Barrow Neurological Institute, Phoenix, AZ
- 2/12 Theodore N: Are they dead yet? Determination of brain death with a focus on newer technologies. "February in Phoenix" Trauma Symposium, St. Joseph's Hospital and Medical Center, Phoenix, AZ
- 3/12 Theodore N: Brain Death. 7th Annual Traumatic Brain Injury Symposium. Barrow Neurological Institute, Phoenix, AZ
- 5/12 Theodore N: Spinal therapeutics: Hype vs hope. New paradigm procedure for the management of adult tethered cord syndrome. 38th Annual Barrow Neurological Institute Neurosurgery Symposium, Phoenix, AZ
- 6/12 Theodore N: Spine and spinal cord injury. 2012 Neurotrauma Symposium, Phoenix, Children's Hospital, Phoenix, AZ
- 8/12 Theodore N: Opportunities in the treatment of traumatic spinal cord injury. Neuroscience Grand Rounds, Barrow Neurological Institute, Phoenix, AZ
- 10/12 Sullivan C, Theodore N: Field management of brain and SCI: BNI Paramedic Training Symposium. Barrow Neurological Institute, Phoenix, AZ
- 10/12 Theodore N: Field management of the brain and spinal cord injured patients: What matters. 6th Annual EMS Conference, Barrow Neurological Institute, Phoenix, AZ
- 10/12 Theodore N: You've been screwed...Spinal surgery demystified. 31st Annual Barrow Neurological Institute Nursing Symposium, Phoenix, AZ
- 1/13 Theodore N: The future of spinal surgery: Emerging trends, opportunities – what is ahead? Spine Business Summit, Barrow Neurological Institute, Phoenix, AZ
- 2/13 Theodore N: Losing your head. Literally. Diagnosis and management of atlanto-axial dislocation. Phoenix Trauma Symposium, Phoenix, AZ
- 4/13 Theodore N: Advances in the treatment of spinal disorders, from low back pain to spinal cord injury. Barrow Beyond Salon, Phoenix, AZ
- 5/13 Theodore N: Grand Rounds: Cervical spine injuries in children. Phoenix Children's Hospital, Phoenix, AZ
- 5/13 Theodore N: Spinal surgery: The good, the bad, & the ugly. 39th Annual Barrow Neurological Institute Neurosurgery Symposium. Phoenix, AZ
- 9/13 Theodore N: Management of intrinsic spinal cord tumors. 2013 Barrow Neuro-Oncology Symposium. Royal Palms Resort, Scottsdale, AZ
- 10/13 Theodore N, Sullivan C: Field management of the brain and spinal cord injured patient: What matters. 6th Annual EMS Conference, Level 1 Trauma Center, St. Joseph's Hospital and Medical Center, Phoenix, AZ
- 11/13 Theodore N: Current concepts in the treatment of acute cervical spine. 5th Annual Trauma and Acute Care Symposium, Talking Stick Resort, Scottsdale, AZ
- 5/14 Theodore N (Course Director): 40th Annual Barrow Neurological Institute Neurosurgery Symposium, Phoenix
- 5/14 Bailes J, Theodore N: Is my child's brain really safe in contact sports? 40th Annual Barrow Neurological Institute Neurosurgery Symposium, Phoenix, AZ
- 5/14 Theodore N: Coming up short: Vertebral osteotomy for tethered cord syndrome. 40th Annual Barrow Neurological Institute Neurosurgery Symposium, Phoenix, AZ

- 6/14 Theodore N: Protecting our youth from concussion. Arizona Sports Fan Expo, Inaugural Event, University of Phoenix Stadium, Phoenix, AZ
- 10/14 Theodore N: Current management of acute spinal cord injury, Level 1 Trauma Center 8th Annual EMS Conference, St. Joseph's Hospital and Medical Center, Phoenix, AZ
- 11/14 Theodore N: Stemming the red tide: Combined endovascular and spinal reconstruction techniques for highly vascular tumors. 3rd Annual Barrow Neuro-Oncology Symposium, Barrow Neurological Institute, Phoenix, AZ
- 12/14 Theodore N: Traumatic brain injury: A neurosurgeon's perspective. Brain Injury Alliance, The mystery of brain injury: Decoding the clues of cognitive challenges, 2nd Annual Conference for Professionals, Desert Willow Conference Center, Phoenix, AZ
- 2/15 Theodore N: The Future of Spinal Cord Injury is NOW!! Barrow Spinal Cord Injury Symposium, Barrow Neurological Institute, Phoenix, AZ
- 1/16 Martirosyan N (presenter), Theodore N: Cerebrospinal fluid drainage and induced hypertension improve spinal cord perfusion in the setting of acute spinal cord injury. Neuroscience: 6th Research Symposium, Barrow Neurological Institute, Phoenix, AZ

National

- 4/95 Theodore N, Henderson FC: Evaluation of fusion following usage of Moss-Harms basket for vertebral body replacement. American Association of Neurological Surgeons, 63rd Annual Meeting. Orlando, FL
- 6/96 Vishteh AG, Harrington T, Theodore N, Sonntag VKH: Cervical spine fusion: allograft versus autograft. Rocky Mountain Neurosurgical Society, 31st Annual Meeting. Telluride, CO
- 4/97 Vishteh AG, Harrington TR, Theodore N, Baskin JJ and Sonntag VKH: Cervical spine fusion after single- or two-level discectomy: Autograft versus allograft. American Association of Neurological Surgeons, 65th Annual Meeting, Denver CO
- 9/97 Theodore N, Apostolides PJ, Karahalios DG, Dickman CA and Sonntag VKH. Spinal arthrodesis in a pediatric population. Congress of Neurological Surgeons, 47th Annual Meeting. New Orleans, LA
- 1/98 Harrington TR, Vishteh AG, Theodore N and Sonntag VKH. A prospective series comparing autografts and allografts in anterior cervical discectomy and fusion. Pan Pacific Surgical Assn, 24th Congress. Honolulu, HI
- 10/98 Theodore N, Hurlbert RJ, Drabier JB, Magwood A, and Sonntag VKH: A randomized double-blind controlled trial evaluating the efficacy of a morphine-based nerve paste. Congress of Neurological Surgeons, 48th Annual Meeting. Seattle, WA
- 10/98 Theodore N, Hurlbert RJ, Drabier JB, Magwood A, and Sonntag VKH: A randomized double-blind controlled trial evaluating the efficacy of a morphine-based nerve paste. North American Spine Society, 13th Annual Meeting. San Francisco, CA
- 11/98 Theodore N, Hurlbert RJ, Drabier JB, Magwood A, and Sonntag VKH: A randomized double-blind controlled trial evaluating the efficacy of a morphine-based nerve paste. The American Academy of Neurological Surgery, Annual Meeting. Santa Barbara, CA
- 2/99 Theodore N, Hurlbert RJ, Drabier JB, Magwood A, and Sonntag VKH: A randomized double-blind controlled trial evaluating the efficacy of a morphine-based nerve paste. Section on Disorders of the Spine and Peripheral Nerves of American Association of Neurological Surgeons and Congress of Neurological Surgeons, 15th Annual Meeting. Lake Buena Vista, FL
- 6/99 Theodore N, Vishteh AG, Apostolides PJ, Karahalios DG, Crawford N, Chamberlain R, Dickman CA, ReKate HL, Sonntag VKH: Occipitocervical fusion in a pediatric population: Long-term follow-up and detailed osteometric analysis. Rocky Mountain 34th Annual Meeting, Coeur d'Alene, ID
- 10/99 Vishteh AG, Theodore N, Harrington TR, Baskin JJ, Ezz-Eldin A, Sonntag VKH: Single and two-level anterior cervical discectomy and arthrodesis, autograft versus allograft: Radiographic and clinical outcomes: North American Spine Society 14th Annual Meeting, Chicago, IL
- 10/99 Han P, Feiz-Erfan I, Spetzler RF, Porter RW, Detwiler PW, Theodore N, Joganic EF, Beals SP, Reiff J: Results of extracranial transfacial approaches to anterior skull base lesions. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Theodore N, Geldmacher TR, Sonntag VKH, Spetzler RF: A prospective analysis of a microscope integrated laser-based image-guided frameless stereotactic system. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Theodore N, Gonzalez LF, Spetzler CB, Porter RW, Zubay G, Hott J, Dickman CA, Sonntag VKH: Vertebral coccidioid infection: The Barrow Neurological Institute Experience. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA

- 10/99 Theodore N, Hurlbert RJ, Drabier JB, Magwood A, and Sonntag VKH: A randomized double-blind controlled trial evaluating the efficacy of a morphine-based nerve paste. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Theodore N, Vishteh AG, Apostolides PJ, Karahalios DG, Crawford N, Chamberlain R, Dickman CA, ReKate HL, Sonntag VKH: Occipitocervical fusion in a pediatric population: Long-term follow-up and detailed osteometric analysis. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Theodore N, Vishteh G, Partovi S, Bird R, Drabier JB, Sonntag VKH: MRI follow-up of patients undergoing lumbar surgery with epidural application of a morphine-based nerve paste. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Vishteh AG, Alleyne CH Jr, Theodore N, Coscarella E, Feiz-Erfan I, Spetzler RF: Frameless intraoperative stereotaxy as an adjunct for the surgical management of giant fusiform aneurysms. Technical note. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Vishteh AG, Inci S, Zabramski JM, Theodore N, McDougall CG, Spetzler RF: Long-term radiographic follow-up of cerebrovascular interposition vein bypass grafts: Stenoses, occlusions, and de novo aneurysm formation. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Vishteh AG, Theodore N, Harrington T, Baskin JJ, Ezz-Eldin A, Sonntag VKH: Single and two-level anterior cervical discectomy and arthrodesis. Autograft versus allograft: Radiographic and clinical outcomes. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 2/00 Yucesoy K, Vishteh AG, Theodore N, Sonntag VKH: Posterior C1-C2 transarticular screw fixation and wiring following transoral decompression: Long term and clinical radiograph follow-up. American Association of Neurological Surgeons, 68th Annual Meeting, San Francisco, CA
- 5/00 Rogers L, Theodore N, Sonntag VK, Dickman C, Thomas T, Speiser B: Permanent I-125 seed paraspinal brachytherapy for malignant tumors with spinal cord compression. 2nd Joint International ABS/GEC-ESTRO/GLAC Meeting, American Brachytherapy Society, Crystal City, VA
- 6/00 Theodore N, Huang WC, Duggal N, Rogers L, Sonntag VKH, Dickman CA: Spinal brachytherapy with I125 for malignant tumors. Rocky Mountain Neurosurgical Society, Alyeska Resort, Girdwood, AK
- 6/00 Theodore N, Maxwell J, Carey D, Volenac J, Griffith S: Resident Award Paper, Rhmp-52 vs autograft fusion in a baboon anterior lumbar interbody cage model. Rocky Mountain Neurosurg Soc, Alyeska Resort, Girdwood, AK
- 6/00 Theodore N, Gonzalez LF, Spetzler CB, Porter RW, Zubay G, Hott J, Dickman CA, Sonntag VKH: Vertebral coccidioid infection: The Barrow Neurological Institute experience. Rocky Mountain Neurosurgical Society, Alyeska Resort, Girdwood, AK
- 8/00 Theodore N, Partovi S, Sonntag VKH: Prospective analysis of preoperative helical CT angiography for C1-2 transarticular screw placement: A new technique. Kasdon Neurosurgical Research Forum Meeting, Yosemite National Park, CA
- 9/00 Dumont AS, Theodore N, Sonntag VKH, Hurlbert RJ: Efficacy of an analgesic epidural paste following lumbar decompressive surgery: Long-term follow-up of a prospective randomized double-blind controlled trial. Congress of Neurological Surgeons Spine & Peripheral Nerves Section, San Antonio, TX
- 9/00 Theodore N, Sonntag VKH: Decision making in degenerative cervical spine surgery. Congress of Neurological Surgeons Spine & Peripheral Nerves Section, San Antonio, TX
- 10/00 Theodore N, Partovi S, Sonntag VKH: Prospective analysis of preoperative helical CT angiography for C1-2 transarticular screw placement: A new technique. American Academy of Neurological Surgery, 62nd Annual Meeting, Colorado Springs, CO
- 10/00 Vishteh AG, Theodore N, Harrington T, Baskin JJ, Ezz-Eldin A, Sonntag VKH: Single and two-level anterior cervical discectomy and arthrodesis. Autograft versus allograft: Radiographic and clinical outcomes. North American Spine Society, 15th Annual Meeting, New Orleans, LA
- 2001 Westmark R, Lynch J, Baskin D, Ryan P, Bartolomei J, Theodore N, Sonntag VKH: ACDFP with Cornerstone-SR allograft and plate: rhBMP-2 vs. autograft. Congress of Neurological Surgeons, San Diego, CA
- 10/01 Lynch J, Baskin D, Ryan P, Westmark R, Bartolomei JC, Theodore N, Sonntag VKH: ACDFP with Cornerstone-SR allograft and plate: rhBMP-2 vs. autograft. 16th Annual Meeting, North American Spine Society, Seattle, WA
- 10/01 Maxwell J, Theodore N, Gilbert T, Willie B, Bloebaum R, Ordway NR, Yuan HA, Griffith S: A recombinant bone growth factor and a mineralized collagen matrix (Healos/MP52) in threaded interbody fusion cages (abstract). 16th Annual Meeting, North American Spine Society, Seattle, WA
- 10/01 Theodore N, Potocnjak M, Jacobson W, Henn J, Drabier J, Sonntag VKH: Use of 2-octylcyanoacrylate for wound closure in spinal surgery (abstract). 16th Annual Meeting, North American Spine Society, Seattle, WA

- 2002 Baskin DS, Ryan P, Westmark R, Lynch J, Bartolomei J, Theodore N, Sonntag VKH: ACDFP with cornerstone-SR allograft and plate: rhBMP-2 vs autograft. Congress Neurolog Surgeons, Spine & Peripheral Nerves Section
- 2002 Gonzalez LF, Crawford NR, Chamberlain RH, Garza LP, Preul MC, Theodore N, Dickman CA, Sonntag VKH: Craniovertebral junction fixation with transarticular screws: Biomechanical analysis of a novel technique. Congress of Neurological Surgeons, Spine and Peripheral Nerves Section
- 2002 Theodore N, Potocnjak M, Jacobsen W, Drabier J, Crawford NR, Sonntag VKH: Use of 2-Octylcyanoacrylate (OCA) for wound closure in spinal surgery. Congress of Neurological Surgeons, Spine/Peripheral Nerves Section
- 4/02 Gonzalez LF, Crawford NR, Chamberlain RH, Garza LP, Preul MC, Theodore N, Dickman CA, Sonntag VKH: Craniovertebral junction fixation with transarticular screws: Biomechanical analysis of a novel technique. American Association of Neurological Surgeons, 70th Annual Meeting, Chicago, IL
- 4/02 Javedan SP, Theodore N, Horn KM, Pong M, Gibson AR, Ross KR, Preul M, Sonntag VKH: Autologous activated macrophage therapy in canine spinal cord hemisection model. American Association of Neurological Surgeons, 70th Annual Meeting, Chicago, IL
- 12/03 Theodore N: Spinal cord injury clinical research update. Living Today for Tomorrow. 4th Annual Southwest Spinal Cord Injury Educational Conference and Health Fair, Mesa, AZ
- 2/04 Feiz-Erfan I (presenter), Horn EM, Zabramski JM, Klopfenstein JD, Kim LJ, Bristol RE, Lekovic GP, Gore PA, Partovi S, Theodore N, Porter RW: Incidence and pattern of neurovascular injury associated with trauma to the skull base. 15th Annual Meeting of the North American Skull Base Society, New Orleans, LA
- 5/05 Theodore N: Anterior or anteroposterior surgery should be done. Management of Thoracolumbar Burst Fracture in the Neurologically Complete Patient. 31st Annual Scientific Meeting of American Spinal Injury Association Meeting, Spine Trauma Symposium, Dallas, TX
- 9/05 Theodore N: Early decompressive surgery for acute spinal cord injury. 51st Annual Conference, American Paraplegia Society (APS), Riviera Hotel, Las Vegas, NV
- 10/05 Horn EM, Theodore N, Feiz-Erfan I, Lekovic GP, Dickman CA, Sonntag VKH: Complications of halo fixation in the elderly. Congress of Neurological Surgeons 55th Annual Meeting, Boston, MA
- 10/05 Horn EM, Hott J, Porter RW, Theodore N, Papadopoulos S, Sonntag VK: Initial series of atlantoaxial stabilization using a unique C1-C3 lateral mass screw fixation technique. Congress of Neurological Surgeons 55th Annual Meeting, Boston, MA
- 10/05 Theodore N: Minimally invasive lumbar spine surgery. Congress of Neurological Surgeons, 55th Annual Meeting, Boston, MA
- 11/05 Theodore N: Oral Board Review Course (cases). American Association of Neurological Surgeons, Rolling Meadows, IL
- 4/06 Horn EM, Feiz-Erfan I, Bambakidis NC, Sonntag VK, Theodore N: Treatment of thoracolumbar burst fractures: Operative and nonoperative approaches (paper 718). 74th Annual Meeting of the American Association of Neurological Surgeons, San Francisco, CA
- 5/06 Theodore N: AANS Oral Board Review Course (speaker), American Association of Neurological Surgeons, Rolling Meadows, IL
- 10/06 Dogan S, Safavi-Abbasi S, Theodore N, Mariwalla NR, Horn EM, Sonntag VKH: Thoracolumbar and sacral spine injuries in children and adolescents: A review of 89 cases (open paper). 56th Annual Meeting of the Congress of Neurological Surgeons, Chicago, IL
- 10/06 Dogan S, Safavi-Abbasi S, Theodore N, Mariwalla BA, Civelek E, ReKate HL, Sonntag VKH: Pediatric multilevel spine injuries: Patterns of injury, treatment and outcome in 48 patients. 56th Annual Meeting of the Congress of Neurological Surgeons, Chicago, IL
- /07 Fehlings MG, Theodore N, Harrop J, Maurais G, Kuntz C, Shaffrey C, Kwon B, Chapman J, Yee A, Tremblay P, McKerracher L: Results of the Cethrin Phase I/IIa prospective clinical trial of a Rho inhibitor for the treatment of acute spinal cord injury (Article 40726). 75th Annual Meeting of the American Association of Neurological Surgeons, Washington, DC
- 4/07 Safavi-Abbasi S, Rocha R, Reis CV, Theodore N, Crawford NR, Sonntag VKH: Defining working areas and safety zones: A quantitative anatomic and morphometric evaluation of the atlas for posterior lateral mass screw placement (Article 40731). 75th Annual Meeting of the American Association of Neurological Surgeons, Washington, DC
- 4/07 Bristol RE, Hott JS, Feiz-Erfan I, Theodore N, Sonntag VKH: Management of unilateral cervical locked facets in infants (Article 25005). 75th Annual Meeting, American Association of Neurological Surgeons, Washington, DC

- 4/07 Horn EM, Feiz-Erfan I, Lekovic GP, Theodore N: Parsonage-Turner syndrome following cervical foraminotomy: A seldomly recognized risk of neurosurgery (Article 24827). 75th Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 9/07 Theodore N (Visiting Professor): Opportunities in the treatment of traumatic spinal disorders. University of Alabama School of Medicine, Birmingham, AL
- 10/07 Kakarla UK, Little AS, Chang SW, Theodore N: Minimally invasive thoracic pedicle screw fixation using Iso-C image-guidance: A report of six cases. American Association of Neurological Surgeons
- 11/07 Bambakidis NC, Horn EM, Nakaji P, Theodore N, Bless E, Ma C, Preul MC, Coons SW: Endogenous stem cell proliferation is induced by intravenous hedgehog agonist administration following contusion injury in the adult rat spinal cord. Cervical Spine Research Society
- 9/07 Bambakidis N, Horn EM, Theodore N, Sonntag VKH, Preul MC: Intravenous hedgehog (Hh) agonist treatment induces endogenous stem cells following contusion injury in the adult rat spinal cord. 57th Annual Meeting of Congress of Neurological Surgeons, San Diego, CA
- 2/08 Theodore N; Spine, trauma, critical care, complications. American Association of Neurological Surgeons, Houston, TX
- 2/08 Theodore N: Anterior: Multi-level ACDF vs. corpectomy; Static vs. dynamic plating. Complex Cervical Spine Techniques, Denver, CO
- 4/08 Ames CP, Gallo CJ, Theodore N, Yonemura KS: Lumbar interbody fusion. 76th Annual Meeting of American Association of Neurological Surgeons, Chicago, IL
- 4/08 Theodore N, Walsh BP, Want MY: Management of spinal axis trauma. 76th Annual Meeting of American Association of Neurological Surgeons, Chicago, IL
- 4/08 Horn EM, Theodore N, Assina R, Spetzler RF, Sonntag VK, Preul M: The effects of intrathecal hypotension on tissue perfusion and pathophysiological outcome following acute spinal cord injury. 76th Annual Meeting of American Association of Neurological Surgeons, Chicago, IL
- 4/08 Yee A, Kwon B, Kuntz C, Enschap J, Theodore N, Fehlings M: Results of a prospective, multicenter phase I/IIa clinical trial to evaluate safety and preliminary efficacy of a recombinant Rho inhibitor (Cethrin) in severe acute spinal cord injury. 76th Annual Meeting of American Association of Neurological Surgeons, Chicago, IL
- 6/08 Theodore N: Opportunities in the treatment of traumatic spinal disorders. Advances in Neurosurgery, 2nd Annual Bay Area Symposium, Washington Hospital Healthcare System, Fremont, CA
- 7/08 Theodore N: Surgical management of craniovertebral junction trauma. 14th Annual Montana Leibrock Neurosurgery Symposium, The Lodge at Whitefish Lake, Whitefish, MT
- 7/08 Theodore N: Opportunities in the treatment of traumatic spinal disorders. 14th Annual Montana Leibrock Neurosurgery Symposium, The Lodge at Whitefish Lake, Whitefish, MT
- 9/08 Brasiliense LBC, Theodore N, Safavi-Abbasi S: The legacy of Hephaestus: The first neurosurgeon. 58th Annual Meeting of the Congress of Neurological Surgeons, Orlando, FL
- 9/08 Ponce FA, Theodore N, Lekovic GP, Kakarla UK: Traumatic cervical nerve root avulsion presenting with compressive anterior cervical pseudomeningocele: A case report. 58th Annual Meeting of Congress of Neurological Surgeons, Orlando, FL
- 9/08 Brasiliense LBC, Crawford NR, Lazaro BCR, Theodore N, Reyes PM: The contribution of the rib cage to the stability of the thoracic spine. 58th Annual Meeting of Congress of Neurological Surgeons, Orlando, FL
- 9/08 Horn EM, Reyes PM, Baek S, Safavi-Abbasi S, Senoglu MM, Theodore N, Sonntag VKH, Crawford: Biomechanics of C7 transfacet screw fixation. 58th Annual Meeting of Congress Neurolog Surgeons, Orlando, FL
- 2008 Theodore N: The effects of intrathecal hypotension following acute spinal cord injury. American Academy of Neurological Surgery, German Academy of Neurosurgery, German Society of Neurosurgery, 2008 Scientific Program, Sedona, AZ
- 2/09 Theodore N: Trauma, critical care complications. Weekend Update: Interactive Review of Clinical Neurosurgery by Case Management, American Association of Neurological Surgeons, Scottsdale, AZ
- 3/09 Maughan PH, Theodore N, Albuquerque F, Kucia EJ, Chang SJ: Multimodality treatment of iatrogenic vertebral artery injury during cervical or craniocervical surgery. Annual Meeting of the American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine/Peripheral Nerves
- 3/09 Brasiliense LBC, Lazaro BCR, Reyes PM, Theodore N, Crawford NR: The contribution of the rib cage to the stability of the thoracic spine. Annual Meeting of American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves

- 3/09 Brasiliense LBC, Theodore N, Lazaro BCR, Sayed ZA, Sonntag VKH, Crawford NR: Comparative pull-out force of misplaced pedicle screws in the thoracic spine: How much strength is lost. Annual Meeting of American Assn of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of Spine /Peripheral Nerves
- 3/09 Colle KO, Butler JB, Reyes PM, Sawa AU, Theodore N, Crawford NR: Biomechanics of the CerviCore® Cervical Disc Prosthesis. Annual Meeting of American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves
- 4/09 Martirosyan NL, Bennett KM, Theodore N, Preul MC: Manganese enhanced MRI tract-tracing for spinal cord injury. 17th Annual Meeting of International Society for Magnetic Resonance in Medicine, Honolulu, HI
- 4/09 Theodore N: Manganese-enhanced MRI. 17th Annual Meeting of International Society for Magnetic Resonance in Medicine, Honolulu, HI
- 5/09 Barry CJ, Gallo CJ, Theodore N, Yonemura (panelists): Lumbar body interbody fusion. 77th Annual Meeting of American Association of Neurological Surgeons, San Diego, CA
- 5/09 Lew SM, Theodore N, Walsh BP, Want MY (panelists): Management of spinal axis trauma. 77th Annual Meeting of American Association of Neurological Surgeons, San Diego, CA
- 5/09 Mortazavi M, Hom D, Martirosyan N, Kushchayev S, Want W, Verma K, Theodore N, Sonntag VKH, Panitch A, Preul MC: Synthes Resident Spine Award: Using hyaluronic acid as a scaffold to promote spinal cord regeneration. 77th Annual Meeting of American Association of Neurological Surgeons, San Diego, CA
- 8/09 Block AA, Abla A, Kakarla U, Theodore N, Albuquerque F, Spetzler RF: Traumatic cortical and dural arteriovenous fistulas caused by BB gun injury in a pediatric patient. World Federation of Neurosurgical Societies
- 8/09 Martirosyan NL, Theodore N, Preul MC: XIV World Congress of Neurological Surgery, Boston, MA
- 10/09 Baaj AA, Gantwerker BR, Theodore N, Dickman CA, Vale FL, Uribe JS, Crawford NR, Sonntag VKH: Treatment algorithm for thoracolumbar fractures based on axial zones. 59th Annual Meeting of Congress of Neurological Surgeons, New Orleans, LA
- 2/10 Theodore N: Trauma, critical care complications. Weekend Update: Interactive Review of Clinical Neurosurgery by Case Management, American Association of Neurological Surgeons, Scottsdale, AZ
- 4/10 Theodore N: Juvenile rheumatoid arthritis of the spine. Grand Rounds. Hospital of Saint Raphael, New Haven, CT
- 8/10 Theodore N, Eck J: Complication Session 2. Complications in Spine Surgery, An M & M Conference, Teton Village, WY
- 10/10 Fehlings MG, Theodore N, Harrop JS, Maurais G, Kuntz C IV, Shaffrey CI, Kwon B, Chapman J, Tighe A, McKerracher L: A phase I/IIa clinical trial of a recombinant Rho protein antagonist in patients with complete cervical and thoracic spinal cord injuries. 60th Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 10/10 Theodore N: Posterolateral and/or posterior interbody fusion for low back pain. 60th Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 4/11 Theodore N (panelist): Management of cervicothoracic trauma. American Association of Neurological Surgeons Annual Scientific Meeting, Denver, CO
- 4/11 Das K, Holly LT, Theodore N, Nottmeier EW, Patel N: Spinal biomechanics: A neurosurgeon's perspective. American Association of Neurological Surgeons Annual Scientific Meeting, Denver, CO
- 5/11 Mamlouk MD, vanSonnenberg E, Schraml F, Theodore N: RF ablation of the anterior spinal vertebral body osteoid osteoma: A safe and effective approach. AARS, Chicago, IL
- 10/11 Theodore N: Correction of clivo-axial angle in the treatment of Chiari malformation. Ehlers-Danlos Syndrome Colloquium, Washington, DC
- 10/11 Snyder LA, Kalb S, Kakarla UK, Theodore N: Does plating improve anterior lumbar interbody fusion clinical outcomes? Congress Neurological Surgeons, Section on Disorders of Spine.Peripheral Nerves, Washington, DC
- 10/11 Kalb S, Martirosyan NL, Sindhvani MK, Zaidi H, Theodore N: Impact of systemic hypertension on MRI signal cord changes in cervical stenosis patients: An observational study. Congress of Neurological Surgeons, Section on Disorders of the Spine and Peripheral Nerves, Washington, DC
- 10/11 Kalb S, Dean B, Porter RW, Martirosyan NL, Theodore N: Cervical spine cord infarct after decompressive surgery. Congress of Neurological Surgeons, Section on Disorders of the Spine and Peripheral Nerves, Washington, DC
- 10/11 Kalb S, Lefevre R, Reis MT, Cowperthwaite MC, Theodore N, Fox DJ Jr, Sonntag VKH: Dysphagia after anterior cervical spine surgery: Incidence and risk factors. Congress of Neurological Surgeons, Section on Disorders of the Spine and Peripheral Nerves, Washington, DC

- 10/11 Cronk KM, Theodore N: Procalcitonin is a more specific marker and has a higher positive predictive value for identifying cases of spinal postoperative infections than ESR or CRP. Congress of Neurological Surgeons, Section on Neurotrauma and Critical Care, Washington, DC
- 10/11 Theodore N (faculty): Seminar on Spine and Peripheral Nerve Injuries in Sports. Congress of Neurological Surgeons, Washington, DC
- 10/11 Theodore N: Posterolateral and/or posterior interbody fusion in low back pain. Consensus Session on Management of Low Back Pain: What is Standard of Care? Congress of Neurological Surgeons, Section on Disorders of the Spine and Peripheral Nerves, Washington, DC
- 11/11 Theodore N: Image-guidance for cervical fusion procedures. Instructional Course: MRI of the Spine and Spinal Image Guidance. North American Spine Society 26th Annual Meeting, Chicago, IL
- 2/12 Theodore N: Degenerative and neoplastic spine. American Association of Neurological Surgeons, Las Vegas, NV
- 4/12 Theodore N: Cervicothoracic junction trauma. 2012 American Association of Neurological Surgeons Annual Scientific Meeting, Miami Beach, FL
- 4/12 Theodore N: Scientific in vitro and clinical evidence to support electrostimulation in bone healing. 2012 American Association of Neurological Surgeons Spine Section Annual Scientific Meeting, Miami Beach, FL
- 9/12 Theodore N: Posterior cervical instrumentation (lateral mass, C1-2, translaminar, occipito-cervical). Second Annual Johns Hopkins Spine Workshop, Vista Labs, Johns Hopkins University, Baltimore, MD
- 10/12 Snyder LA, Perez-Orribo L, Kalb S, Hsu FD, Crawford NR, Theodore N: The correlation of CT measurements with transverse atlantal ligament integrity in craniovertebral junction injuries. 2012 Annual Meeting, Congress of Neurological Surgeons, Chicago, IL
- 10/12 Crook-Bendett K, Kalb S, Lefevre RD, Elhadi M AM, Theodore N: Transforaminal vs posterior interbody fusion: A comparison of outcomes. 2012 Annual Meeting, Congress of Neurological Surgeons, Chicago, IL
- 10/12 Theodore N: Guidelines webinar: Update on the guidelines for the management of cervical spine trauma. Congress of Neurological Surgeons
- 11/12 Theodore N: Guidelines update on the management of acute cervical spinal cord injury. Management of the Neurotrauma Patient, DePuy Institute, Raynham, MA
- 11/12 Al-Omaishi L, Theodore N, Treiman LJ, Treiman DM: Difficulties with recruitment of traumatic brain injured patients for a prospective post-traumatic epilepsy study. American Epilepsy Soc Annual Meeting, San Diego, CA
- 3/13 Theodore N: Spine surgery: The good, the bad, and the ugly. Scientific session in Patient Advocacy. 29th Annual Meeting of American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ
- 4/13 Theodore N: Spinal biomechanics: A surgeon's perspective. 81st American Association of Neurological Surgeons Annual Scientific Meeting, Changing our Culture to Advance Patient Safety. New Orleans, LA
- 4/13 Theodore N: Subaxial cervical trauma. 81st American Association of Neurological Surgeons Annual Scientific Meeting, Changing our Culture to Advance Patient Safety. New Orleans, LA
- 4/13 Theodore N: Occipito-atlanto-and atlanto-axial dislocations. 81st American Association of Neurological Surgeons Annual Scientific Meeting, Changing our Culture to Advance Patient Safety. New Orleans, LA
- 4/13 Theodore N: Image guided cervical spinal surgery. 81st American Association of Neurological Surgeons Annual Scientific Meeting, Changing our Culture to Advance Patient Safety. New Orleans, LA
- 4/13 Theodore N: Transfacet technology: An alternative to pedicle screw fixation with interbody fusion. 81st American Association of Neurological Surgeons Annual Scientific Meeting, Changing our Culture to Advance Patient Safety. New Orleans, LA
- 4/13 Elhadi AM, Kalani MY, Martiroysan NL, Mendes GAC, Abbassy M, Theodore N, Preul MC: Anatomy of the spine as known in ancient Egypt. 81st American Association of Neurological Surgeons Annual Scientific Meeting, Changing our Culture to Advance Patient Safety. American Association of Neurological Surgeons History Section Session. New Orleans, LA
- 6/13 Theodore N: The pharmacologic management of acute spinal cord injury. 2013 University of Neurosurgery Webinar Series
- 8/13 Theodore N: Thoracic instrumentation pearls. 4th Annual ONE Spine Resident's and Fellow's Course, Swedish Neuroscience Institute, Seattle Science Foundation, Seattle, WA
- 8/13 Uribe J, Theodore N (Hands-on Cadaver Lab & Exhibits): Lateral approaches. Fourth Annual ONE Spine Resident's and Fellow's Course, Swedish Neuroscience Institute, Seattle Science Foundation, Seattle, WA
- 9/13 Theodore N, Kakarla K, Kalyvas J, Kalb S, Oppenlander ME: Posterior vertebral column subtraction osteotomy for the treatment of tethered cord syndrome: A prospective outcome study. 75th Annual Meeting, American Academy of Neurological Surgery, Newport Beach, CA

- 10/13 Theodore N: Coccidioidal meningitis, Clinical and therapeutic challenges in a single institution. Session on Fungal Infections, IDWeek, Moscone Center, San Francisco, CA
- 10/13 Theodore N (Speaker): The timing of surgical management after SCI. 63rd Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 10/13 Asher AL, Watridge CB, Mummaneni PV, Knightly JJ, Oetting G, Theodore N, Gottfried ON, Khairi S, Schmidt MH, Boakye M, Kalkanis SN, Rabin D, Ryjken TC, Balturshot GW: National Neurosurgery Quality and Outcomes Database (N2QD) Pilot: Interim analysis of registry feasibility, data integrity and the safety and effectiveness of surgical spine care. 63rd Annual Meeting of Congress Neurological Surgeons, San Francisco, CA
- 10/13 Dhall SS, Hurlbert J, Rozzelle CH, Theodore N, Walters BC: Acute cervical spine and spinal cord trauma: The medical evidence and controversies of top-flight care. 63rd Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 10/13 McGirt MJ, Glassman SD, Theodore N, Gottfried ON, Khairi SA et al: The national quality and outcomes database (N2QOD) Pilot: Interim analysis of registry feasibility, data integrity and the safety and effectiveness of surgical spine care. 28th Annual Meeting, North American Spine Society, New Orleans, LA
- 11/13 Theodore N (Visiting Professor): The Future of Spinal Surgery. University of Oklahoma, Department of Neurosurgery, Oklahoma City, OK
- 3/14 Theodore N: Pelvic incidence and the importance of sagittal balance. 30th Annual Meeting of American Assn Neurological Surgeons/Congress of Neurological Surgeons Section of Spine/Peripheral Nerves, Orlando, FL
- 3/14 Martirosyan NL, Theodore N: Cerebrospinal fluid drainage and induced hypertension improve spinal cord perfusion in the setting of acute spinal cord injury, Orlando, FL.
- 4/14 Theodore N: Craniovertebral junction trauma. 2014 American Association of Neurological Surgeons Annual Scientific Meeting, San Francisco, CA
- 4/14 Theodore N: Biomechanics of the spine. A Neurosurgeon's perspective. 2014 American Association of Neurological Surgeons Annual Scientific Meeting, San Francisco, CA
- 4/14 Theodore N: Management of craniocervical junction trauma. 2014 American Association of Neurological Surgeons Annual Scientific Meeting, San Francisco, CA
- 4/14 Theodore N: The roles of the neurosurgeon in assessment/treatment of spine injuries. 2014 American Association of Neurological Surgeons Annual Scientific Meeting, San Francisco, CA
- 4/14 Theodore N: Updated guidelines on the management of cervical spine injuries. 2014 American Association of Neurological Surgeons Annual Scientific Meeting, San Francisco, CA
- 8/14 Sansur C, Theodore N: Occipital cervical. 5th Annual ONE Spine Residents and Fellows Course, Seattle Science Foundation, Seattle, WA
- 8/14 Theodore N: Occipital cervical pearls. 5th Annual ONE Spine Residents and Fellows Course, Seattle Science Foundation, Seattle, WA
- 8/14 Sansur C, Theodore N: Occipital cervical techniques. 5th Annual ONE Spine Residents and Fellows Course, Seattle Science Foundation, Seattle, WA
- 9/14 Theodore N (peer-reviewed abstract): Cerebrospinal fluid drainage and induced hypertension improve spinal cord perfusion after acute spinal cord injury in pigs. 76th Annual Meeting, American Academy of Neurological Surgery, Santa Rosa Beach, FL
- 10/14 Theodore N: Translating guidelines into outcomes assessment, Annual Meeting of Congress of Neurological Surgeons, Boston, MA
- 10/14 Godil SS, McGirt MJ, Glassman SD, Knightly JJ, Mummaneni PV, Oetting G, Theodore N et al: Defining the effectiveness of lumbar spine surgery in a nationwide, prospective longitudinal quality of life registry: An analysis of variability in patient-reported outcomes and preliminary predictive models of treatment failure. Annual Meeting of Congress of Neurological Surgeons, Boston, MA
- 10/14 Liu CY, Shaffrey CI (moderators), Hsieh PC, O'Toole JE, Theodore N (faculty: SANS supplemental exam): Spine. Annual Meeting of Congress of Neurological Surgeons, Boston, MA
- 10/14 Theodore N: Personalized medicine in spine surgery. Annual Meeting of Congress of Neurological Surgeons, Boston, MA
- 3/15 Martinez del Campo Oviedo E, Kalb S, Turner JD, Perez-Orribo L, Rangel Castilla L, Soriano-Baron HE, Theodore N: Occipitocervical fixation: A single surgeon experience with 120 patients. 31st Annual Meeting of Section on Disorders of the Spine/Peripheral Nerves, Spine Summit 2015, Phoenix, AZ
- 3/15 Theodore N (faculty): Spine section cadaveric instruction. 31st Annual Meeting of Section on Disorders of the Spine and Peripheral Nerves, Spine Summit 2015, JW Marriott Desert Ridge, Phoenix, AZ

- 3/15 Soriano-Baron HE, Rodriguez-Martinez NG, Martinez del Campo Oviedo E, Reyes PM, Newcomb A, Yerby S, Lindsey D, Theodore N, Crawford NR: Sacro-iliac joint fusion with two different minimally invasive techniques: Posterior vs. transarticular. 31st Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves, Spine Summit 2015, JW Marriott Desert Ridge, Phoenix, AZ
- 3/15 Theodore N: Head injury/cranio-cerebral trauma. Congress of Neurological Surgeons, SANS MOC Board Review Course, Phoenix, AZ
- 5/15 Theodore N: Basics of spinal stabilization – Advanced practice providers/medical students/residents. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 5/15 Theodore N: Neurosurgeon team physician. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 5/15 Asher AL, McGirt M, Parker S, Mummaneni P, Glassman S, Knightly J, Theodore N, Gottfried O, Ryken T, Shaffrey C, Foley K, Chotai S, Devin C: Improvement in pain, disability, and quality of life following lumbar spine surgery: A predictive model from the N2QOD registry. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 5/15 Preul MC, Kushchayev S, Eng D, Giers M, Martirosyan N, Mortazavi M, Theodore N, Sonntag VKH, Panitch A: Hyaluronic acid reduces scarring in spinal cord injury. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 5/15 Theodore N (discussant): Nonelective decompression for central cord syndrome: The economics and outcomes. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 8/15 Theodore N: Novel concepts in spinal cord pathophysiology. Annual Musculoskeletal Education and Research Center Symposium, Audubon, PA
- 8/15 Theodore N: C1, C2 anatomy and subaxial cervical spine reconstruction. Sixth Annual ONE Spine Residents & Fellows Course at Seattle Science Foundation, Seattle, WA
- 8/15 Sansur C, Theodore N: Occipital cervical anatomical station. Sixth Annual ONE Spine Residents & Fellows Course at Seattle Science Foundation, Seattle, WA
- 9/15 Theodore N: Bad blood: Novel concepts in spinal cord pathophysiology. Inova Neuroscience and Spine Institute, Falls Church, VA
- 6/16 Theodore N: Clinical management of pediatric SCI. 34th Annual Symposium of National Neurotrauma Society, Lexington, KY
- 2/17 Theodore N: The future of spinal cord injury is now. 2017 Barrow Spinal Cord Injury Symposium. Barrow Neurological Institute, Phoenix, AZ
- 3/17 Theodore: Introduction of DSPN Chairman. Spine Summit 2017–33rd Annual Meeting of AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Las Vegas, NV
- 3/17 Coric D, Theodore N, Kim KD, Hsieh P, Ray WZ, Lee KS, Dumont TM, Neff K, Crockett L, Aimetti A, Ulich T, Masouka L: INSPIRE study update on 10 acute complete spinal cord injury patients implanted with a bioresorbable polymer scaffold. Spine Summit 2017–33rd Annual Meeting of AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Las Vegas, NV
- 3/17 Layer RT, Aimetti A, Arnold PM, Barry M, Coric D, Fehlings MG, Guest JD, Heary RF, Hsieh PC, Kim K, Lee S, Masouka LK, Neff KM, Ray Z, Theodore N, Ulich T: Magnetic resonance imaging (MRI) does not distinguish between contusion and compound cord lesions following severe (AIS A) traumatic acute thoracic cord injury: Intraoperative microsurgical observations from the INSPIRE trial. Spine Summit 2017–33rd Annual Meeting of AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Las Vegas, NV
- 3/17 Fulton T, Goodwin CR, Ahmed AK, Sciubba DM, Theodore N: Genetic influences of lumbar disk herniation in young patients. Spine Summit 2017–33rd Annual Meeting of AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Las Vegas, NV
- 3/17 Theodore N: Novel concepts in spinal cord pathophysiology. 15th Annual Jack and Sabina Frew Lecture, Indiana University Health Neuroscience Center, Indianapolis, IN
- 4/17 Casha S, Meyer B, Sansur C, Theodore N, Thome C, Trost G: Contemporary management of spinal fractures. 85th Annual Meeting of American Association of Neurological Surgeons, Los Angeles, CA
- 4/17 El Shawarby A, Fehlings M, Harrop J, Hoh D, Jacobs WB, LaFuente J, Theodore N, Thome C: Update on the management of spine and spinal cord surgery. 85th Annual Meeting of American Association of Neurological Surgeons, Los Angeles, CA
- 4/17 Theodore N: Genetic predisposition to lumbar disk herniation in pediatric patients. 85th Annual Meeting of American Association of Neurological Surgeons, Los Angeles, CA

- 4/17 Theodore N: Robotics: The future of spine surgery. 85th Annual Meeting of the American Association of Neurological Surgeons, Los Angeles, CA
- 5/17 Theodore N: Novel concepts in spinal cord pathophysiology. Current Advances in Spinal Cord Injury Research Symposium, Newark, NJ
- 8/17 Uneri A, Zhang X, Stayman JW, Helm P, Osgood GM, Theodore N, Siewerdsen JH: Advanced image registration and reconstruction using the O-arm system: Dose reduction, image quality, and guidance using known-component models (abstract). SPIE Medical Imaging 2018 Annual Meeting, Houston, TX
- 10/17 Bardonova L, Theodore N: Differences between healthy and degenerated intervertebral disc cells metabolic response to bone morphogenetic proteins' influence (abstract). Biomedical Engineering Society Annual Meeting, Phoenix, AZ
- 10/17 Giers M, Bardonova L, Eyster K, Woolf E, Scheck A, Byvaltsev V, Theodore N, Preul MC: Apoptotic intervertebral disc cells' effect on transplanted cells' metabolism (abstract). Biomedical Engineering Society Annual Meeting, Phoenix, AZ

International

- 9/96 Theodore N, Apostolides PJ, Marciano FF, Dickman CA, ReKate H, Sonntag VKH: Pediatric Halo Brace Immobilization: A retrospective analysis of 19 cases with recommendations for application. Congress of Neurological Surgeons, 46th Annual Meeting. Montreal, Canada
- 9/96 Theodore N, Karahalios D, Theobald, M, Apostolides PJ, ReKate H, Dickman CA, Sonntag VKH: Occipitocervical fusions in children with craniovertebral anomalies: long-term follow-up and detailed osteometric analysis. Congress of Neurological Surgeons, 46th Annual Meeting. Montreal, Canada
- 2/97 Theodore N: Spinal Cord Hemangioblastomas. Grand Rounds, Departments of Neurology and Neurosurgery, Frenchay Healthcare Trust, Bristol, England
- 10/99 Theodore N: Image guided neurosurgery: State of the art and future applications. 58th Annual Meeting of the Japan Neurosurgical Society, Tokyo International Forum, Tokyo, Japan
- 5/00 Theodore N, Sonntag VKH: Indications for endoscopic spinal surgery. The Royal College of Surgeons of England, London, United Kingdom.
- 5/00 Theodore N, Sonntag VKH: Demonstration and dissection: Endoscopic spinal surgery including thoracic discectomy. The Royal College of Surgeons of England, London, United Kingdom.
- 5/00 Theodore N, Sonntag VKH: Instrumentation for the thoracic spine (Tumours). The Royal College of Surgeons of England, London, United Kingdom.
- 5/00 Workshop. Theodore N, Sonntag VKH: Thoracic spine: Advances in treatment. The Royal College of Surgeons of England, London, United Kingdom
- 5/00 Theodore N, Sonntag VKH: Spinal cord injury – have we made a difference? Early surgery. The Royal College of Surgeons of England, London, United Kingdom.
- 5/00 Theodore N, Sonntag VKH: Debate – Single level thoracic disease – open versus endoscopic – Advantages of open The Royal College of Surgeons of England, London, United Kingdom.
- 6/07 Theodore N, Ames C: Advanced surgical solutions for treating spinal trauma and tumors. The 14th Annual Meeting on Advanced Spine Techniques, Paradise Island, Bahamas
- 6/07 Theodore N, Ames C: Advanced surgical solutions for treating spinal trauma and tumors (instructional course lecture). The 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas
- 11/08 Theodore N (Faculty Member): Improving lumbar fusion. First Joint Meeting University of São Paulo/Barrow Neurological Institute, São Paulo, Brazil
- 11/08 Theodore N (Faculty Member): The surgery of the cranio-cervical junction. First Joint Meeting University of São Paulo/Barrow Neurological Institute, São Paulo, Brazil
- 11/08 Theodore N (Faculty Member): Pediatric cervical spine injuries. First Joint Meeting University of São Paulo/Barrow Neurological Institute, São Paulo, Brazil
- 11/08 Theodore N (Faculty Member): Opportunities in the treatment of traumatic spinal disorders. First Joint Meeting University of São Paulo/Barrow Neurological Institute, São Paulo, Brazil
- 11/10 Theodore N: Trauma of the craniovertebral junction. XIII Reunión Annual DeActividades Médico Quirúrgicas. Instituto Nacional De Neurologia Y Neurocirugia, Mexico
- 11/10 Theodore N: The future of spinal surgery. XIII Reunión Annual DeActividades Médico Quirúrgicas. Instituto Nacional De Neurologia Y Neurocirugia, Mexico
- 6/11 Theodore N: Spinal cord vascular physiology in normal and pathological states. Intercontinental Neurosurgery, Society of University Neurosurgeons, Athens, Greece

- 6/11 Cronk K, Martirosyan N, Theodore N: Procalcitonin as an early marker for postoperative infection for cases of elective spine surgery. 18th International Meeting on Advanced Spine Techniques, Copenhagen, Denmark
- 6/11 Snyder L, Kalb S, Kakarla UK, Theodore N: Outcomes of anterior lumbar interbody fusion and plating vs. anterior lumbar interbody fusion. 18th International Meeting on Advanced Spine Techniques, Copenhagen, Denmark
- 6/11 Martirosyan N, Kalb S, Cronk K, Theodore N: Analysis of 51 cases of anterior screw fixation in odontoid fractures using isocentric 3-dimensional C-arm fluoroscopy and biplanar fluoroscopy. 18th International Meeting on Advanced Spine Techniques, Copenhagen, Denmark
- 6/11 Theodore N: Descompresion E Instrumentacion En Columna, Cirugia Convencional vs Minimamente Invasiva., Artodesis lumbar convencional, resultados e indicaciones. Congreso Mexicano de Cirugia Neurologica, Sede Hotel Fairmont, Acapulco, Mexico
- 6/11 Theodore N: Sesion Plenaria Ix Columna: Estado Del Arte. El futuro de la cirugia de columna. Congreso Mexicano de Cirugia Neurologica, Sede Hotel Fairmont, Acapulco, Mexico
- 6/11 Theodore N: Reunion de la seccion de columna enfoques diversos en cirugia de columna. Tratamiento actual del trauma en la union craneo-vertebral. Congreso Mexicano de Cirugia Neurologica, Sede Hotel Fairmont, Acapulco, Mexico
- 10/11 Theodore N: impacto de la hipertension arterial sistemica sobre los cambios de senal medular en resonancia y curso clinico en pacientes con estenosis cervica (plenary). XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia, Spain
- 10/11 Theodore N: pronostico clinico tras lesion de arteria vertebral en el contexto del traumatismo cervical cerrado. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia, Spain
- 10/11 Theodore N: alif vs plif: comparacion pronostica. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia, Spain
- 10/11 Theodore N: descompresion quirurgica como tratamiento de la malformacion chiari tipo 1: evaluacion de tecnica quirurgica y pronostico sintomatologicc. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia, Spain
- 4/12 Theodore N (Invited lecture): Management of giant thoracic disk herniations – the basilar artery aneurysms of spinal surgery. Sociedad Mexicana de Cirugia Neurological, AC, Napoles, Mexico
- 5/12 Perez-Orribo L, Kalab S, Bristol RE, Theodore N: Decompression quirurgica como tratamiento de la malformacion chiari tipo I: Evaluacion de la tecnica quirurgica y pronostico sintomatologico. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia senc, Mexico
- 5/12 Ribas-Nijkerk JC, Kalb S, Mahan M, Snyder L, Theodore N: ALIF vs PLIF: Comparacion pronostica. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia senc, Mexico
- 5/12 Kalb S, Ribas-Nijkerk JC, Clark J, Zaidi H, Theodore N: Impacto de la hipertension arterial sistemica sobre los cambios de senal medular en resonancia y curso clinico en pacientes con estenosis cervical. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia senc, Mexico
- 5/12 Perez-Orribo L, Kalb S, Ribas J, Theodore N: Pronostico clinico tras lesion de arteria vertebral en el contexto del traumatismo cervical cerrado. XVII Congreso Nacional de La Sociedad Espanola de Neurocirurgia senc, Mexico
- 6/12 Cronk K, Snyder L, Kalb S, Perez-Orribo L, Theodore N: Transforaminal vs. posterior interbody fusion: A comparison of outcomes and economics. 19th International Meeting on Advanced Spine Techniques, Istanbul Congress Center, Istanbul, Turkey
- 6/12 Cronk K, Elhadi AMM, Kalb S, Snyder L, Theodore N: 600 cases comparing clinical outcomes between posterior lumbar fusion and posterior lumbar interbody fusion. 19th International Meeting on Advanced Spine Techniques, Istanbul Congress Center, Istanbul, Turkey
- 6/12 Mahan MA, Kalb S, Martirosyan N, Theodore N: Occipitocervical fusion surgery: Clinical outcomes of a single institution single surgeon experience. 19th International Meeting on Advanced Spine Techniques, Istanbul Congress Center, Istanbul, Turkey
- 4/13 Theodore N, Sanai N: The Future of Neurosurgery. MABE, Mexico City, Mexico
- 9/13 Rodriguez-Martinez N, Perez-Orribo L, Scoriano-Baron H, Kalb S, Theodore N, Newcomb A, Reyes P, Crawford N: In vitro biomechanics of human cadaveric cervical spines with mature fusion. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Rodriguez-Martinez N, Little A, Perez-Orribo P, Reyes P, Newcomb A, Prevedello D, Theodore N, Crawford N: Biomechanical evaluation of the craniovertebral junction after inferior third clivectomy and intradural exposure of the foramen magnum: Implications for endoscopic endonasal approaches to the cranial base. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea

- 9/13 Soriano-Baron H, Chin K, Rodriguez-Martinez N, Kalb S, Reyes P, Paateder D, Gabriel J, Theodore N, Crawford N: Biomechanical evaluation of two methods of three-level cervical plating: Multiple single-level segmental plates versus a single plate. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Soriano-Baron H, Mendez G, Rodriguez-Martinez N, Kalb S, Reyes P, Newcomb A, Little A, Dickman C, Crawford N, Theodore N: Biomechanical comparison of anterior vs posterior C1-C2 transarticular screw fixation. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Hurlbert RJ, Hadley M, Walters B, Arabi B, Dhall S, Gelb D, Rozzelle C, Ryken T, Theodore N: 2013 AANS/CNS Guidelines for the Management of Acute Cervical Spine Injury: Pharmacological Therapy for Acute SCI. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Theodore N: Surgical techniques for injuries to the craniocervical junction. When and How I Do It: Surgery of Spinal Trauma. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Soriano-Baron H, Chaput C, Herdmann J, Kalb S, Reyes P, Theodore N, Newcomb A, Crawford N, Link H: Biomechanical evaluation of a novel translaminar facet transfacet pedicle screw construct for lumbar fixation. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Rodriguez-Martinez N, Zucherman J, Hsu K, Perez-Orribo L, Reyes P, Crawford N, Theodore N: Biomechanics of a new dynamic lumbar posterior stabilizer. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 9/13 Rodriguez-Martin, Soriano-Baron H, Chaput C, Herdmann J, Reyes P, Kalb S, Theodore N, Newcomb A, Crawford N, Link H: Biomechanical evaluation of a novel lumbar device with bilateral transfacet screws. 15th World Congress of Neurosurgery. One World, One Neurosurgery, Seoul, South Korea
- 8/17 Theodore N: Cervical spine: Anterior approach. XXIV Congreso Mexicano de Cirugía Neurológica. Mexico City
- 8/17 Theodore N: Circumferential 360° decompression treatment for cervical myelopathy is really useful. 24th Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico
- 8/17 Theodore N: Current management of spinal cord injury. 24th Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico
- 8/17 Theodore N: Robotic spine surgery. 24th Congreso Mexicano de Cirugía Neurológica. Mexico City, Mexico

POSTERS

- 10/99 Theodore N, Karahalios DG, Apostolides PJ, Vishteh AG, Bichard W, Sonntag VKH: Effects of epidural and intradural application of a morphine-based nerve paste in the rabbit model (poster) Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 10/99 Yucesoy K, Vishteh AG, Theodore N, Sonntag VKH: Posterior C1-C2 transarticular screw fixation and wiring following transoral decompression: Long-term clinical and radiographic follow-up (poster). Spine & Peripheral Nerves Section, 2000. Congress of Neurological Surgeons, 49th Annual Meeting. Boston, MA
- 9/00 Theodore N, Das K, Saba PR, Partovi S, Sonntag VKH: Prospective analysis of preoperative helical CT angiography for C1-2 transarticular screw placement: A new technique (poster). Congress of Neurological Surgeons 2000, Spine & Peripheral Nerves Section, San Antonio, TX
- 9/00 Theodore N, Huang WC, Duggal N, Rogers L, Sonntag VKH, Dickman CA: Spinal brachytherapy with I125 for malignant tumors (poster). Congress of Neurological Surgeons 2000, Spine & Peripheral Nerves Section, San Antonio, TX
- 10/00 Theodore N, Huang WC, Duggal N, Rogers L, Sonntag VKH, Dickman CA: Spinal brachytherapy with I125 for malignant tumors (poster). Spine & Peripheral Nerves Section, 2000. North American Spine Society, 15th Annual Meeting, New Orleans, LA
- 10/00 Theodore N, Gonzalez LF, Spetzler CB, Porter RW, Zubay G, Hott J, Dickman CA, Sonntag VKH: Vertebral coccidioid infection: The Barrow Neurological Institute experience (poster). Spine & Peripheral Nerves Section, 2000. North American Spine Society, 15th Annual Meeting, New Orleans, LA
- 2000 Theodore N, Riina H, Wallace D, Zubay G, Shamos R, ReKate HL: Laparoscopic distal catheter evaluation to rule out ventriculoperitoneal shunt failure and infections (poster). Congress of Neurological Surgeons, Pediatric Section, Coronado, CA
- 2/04 Bristol RE, Theodore N, ReKate HL: Segmental spinal dysgenesis: Report of 4 cases and proposed management strategy (oral poster). Congress of Neurological Surgeons Annual Meeting, San Francisco, CA
- 2/04 Baskin DS, Ryan P, Westmark R, Lynch J, Bartolomei J, Theodore N, Sonntag VKH: ACDFP with Cornerstone-SR® allograft and plate: rhBMP-2 vs. autograph (poster). Congress of Neurological Surgeons Annual Meeting, San Francisco, CA
- 3/04 Horn EM, Hott JS, Papadopoulos S, Theodore N: Technical feasibility of intraoperative image guidance with isocentric fluoroscopy in spinal trauma (poster). 20th Annual Meeting of the American Association of

- Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves, San Diego Marriott Hotel & Marina, San Diego, CA
- 3/04 Horn EM, Lekovic GP, Feiz-Erfan I, Sonntag VKH, Theodore N: Cervical MRI abnormalities are not predictive of cervical spine instability in trauma patients (poster). 20th Annual Meeting of the American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves, San Diego Marriott Hotel & Marina, San Diego, CA
- 10/05 Gore PA, Horn EM, Bristol RE, Harvey A, Theodore N: Intraoperative epidurography: A rapid and simple technique to evaluate for spinal canal compression (poster). Congress of Neurological Surgeons 55th Annual Meeting, Boston, MA
- 10/05 Horn EM, Bristol RE, Feiz-Erfan I, Theodore N: Traumatic anterior cervical pseudomeningocele mimicking a compressive epidural hematoma (poster). Congress of Neurological Surgeons 55th Annual Meeting, Boston, MA
- 10/05 Horn EM, Theodore N, Klopfenstein J, Feiz-Erfan I, Harvey A, Sonntag VK: Neurosurgical management of cervical bilateral facet dislocation: Anterior vs. posterior fixation (poster). Congress of Neurological Surgeons 55th Annual Meeting, Boston, MA
- 10/05 Lekovic GP, Yuksel Z, Theodore N, Horn EM, Yilmaz M, Sonntag VKH: Ankylosing spondylitis: Patterns of injury and treatment (poster). Congress of Neurological Surgeons, 55th Annual Meeting, Boston, MA
- 10/05 Maughan PH, Gore PA, Theodore N: A retrospective evaluation of thoracolumbar vertebral body replacement using an expandable titanium device (Synex™) (poster). Congress of Neurological Surgeons, 55th Annual Meeting, Boston, MA
- 10/05 Feiz-Erfan I, Horn EM, Theodore N, Zabramski JM, Klopfenstein J, Bristol RE, Hott J, Kim LJ, Lekovic GP, Albuquerque FC, Porter RW, Partovi S, Goslar P, Petersen SR: Blunt trauma to the skull base: Risk assessment of associated neurovascular injury (poster). Congress of Neurological Surgeons 55th Annual Meeting, Boston, MA
- 10/06 Rocha R, Safavi-Abbasi S, Reis CVC, Hattendorf F, Theodore N, De Oliveira E, Sonntag VK, Crawford NR: Working area, angles of attack and safety zones for posterior C1 lateral mass screw placement: A quantitative anatomic and morphometric evaluation of the atlas (digital poster). 56th Annual Meeting of the Congress of Neurological Surgeons, Chicago, IL
- 10/06 Gonzalez LF, Lekovic GP, Kenny K, Theodore N, Dickman CA: Salvage surgery for failed fusion at the lumbosacral region: Diagnosis and treatment paradigm (digital poster). 56th Annual Meeting of the Congress of Neurological Surgeons, Chicago, IL
- 8/09 Martirosyan NL, Bennett KM, Theodore N, Preul MC: Manganese enhanced MRI tract-tracing for spinal cord injury (poster). XIV World Congress of Neurological Surgery, Boston, MA
- 4/11 Theodore N: Common medical conditions affecting outcome of anterior lumbar interbody fusion (electronic poster presentation). American Association of Neurological Surgeons Annual Meeting, Denver, CO
- 10/11 Theodore N: Ossification of the posterior longitudinal ligament: Demographics, risk factors, and clinical presentation in a Caucasian population (digital poster). Congress of Neurological Surgeons, Washington, DC
- 10/11 Theodore N: Comparative analysis of surgical modalities for the treatment of ossified posterior longitudinal ligament (digital poster). Congress of Neurological Surgeons, Washington, DC
- 10/11 Theodore N: Impact of systemic hypertension on MRI signal cord changes in cervical stenosis patients: An observational study (digital forum presentation), Congress of Neurological Surgeons, Section on Disorders of the Spine and Peripheral Nerves, Washington, DC
- 3/12 Theodore N: Outcome after decompression surgery for the treatment of Chiari type 1 malformation. American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves (digital poster), Orlando, FL
- 3/12 Theodore N: Occipitocervical fusion surgery. A single institution single surgeon experience (digital poster). American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves (digital poster), Orlando, FL
- 3/12 Theodore N: Anterior vs posterior interbody fusion. A comparison of outcomes (oral poster). American Association of Neurological Surgeons/Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves (digital poster), Orlando, FL
- 4/12 Theodore N: Catastrophic neurologic complications of emergent endotracheal tube intubation: Report of two cases and review of the literature (electronic poster presentation). 80th Annual American Association of Neurological Surgeons Scientific Meeting, Miami, FL
- 10/12 Theodore N, Cardenas J, Kalani YS, Conley Q, Barrus A, Christopherson R, Pilbeam R: Brainbook: A statewide pilot for educating high school athletes about traumatic brain injury (poster). 2012 Annual Meeting, Congress of Neurological Surgeons, Chicago, IL

- 10/12 Theodore N: Brainbook: A statewide pilot for educating high school athletes about traumatic brain injury (digital poster), Neurosurgical Forum, 201 CNS Annual Meeting, Chicago, IL
- 3/13 Tumialán LM, Marciano FF, Theodore N: The safety and efficacy of 1.05 mg of the rh-BMP-2 in minimally invasive transforaminal lumbar interbody fusion: Review of 100 consecutive cases (poster). 29th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ
- 10/13 Williamson RW, Garrett MP, Byrd R, Theodore N (poster): Reliability of CT angiography as a confirmatory test for brain death determination. 63rd Annual Meeting of Congress of Neurological Surgeons, San Francisco, CA
- 10/14 Theodore N: The effects of pedicle screw trajectory and presence of a crosslink during bilateral pullout (poster). Annual Meeting of Congress of Neurological Surgeons, Boston, MA
- 10/14 Theodore N: Biomechanics of nested transforaminal lumbar interbody cages (poster). Annual Meeting of Congress of Neurological Surgeons, Boston, MA
- 5/15 Ropper AE, Hlubek R, Danielson J, Theodore N (poster): First human implantation of a polymer scaffold for traumatic spinal cord injury: A clinical pilot study for safety and feasibility. 83rd Annual Meeting of American Association of Neurological Surgeons, Washington, DC
- 5/16 Giers MB, Cronk K, Lui Q, Preul MC, Theodore N: Fibrin glue does not increase drug retention in the spine: Implications for intraoperative spine surgery use (poster). 84th Annual Meeting of American Association of Neurological Surgeons, Chicago, IL
- 5/16 Giers MB, Munter B, Ide G, Eyster K, Newcomb A, Byvaltsev V, Kelly B, Crawford NR, Preul MC, Theodore N: Implications for cell survival and regeneration in the intervertebral disc: Factors affecting nutrient transport (poster). 84th Annual Meeting of American Association of Neurological Surgeons, Chicago, IL
- 9/16 Theodore N, Kim K, Hsieh PC, Ray WZ, Barry M, Layer RT, Moore SW, Coric D: High AIS grade conversion rate following neuro-spinal scaffold implantation in acute thoracic complete AIS A spinal cord injury (SCI): Potential mechanisms (poster). Annual Meeting of Congress of Neurological Surgeons, San Diego, CA

Oral Presentations

- 2000 Riina HA, Theodore N, Hott J, ReKate HL, Spetzler RF: Surgical treatment of spinal arteriovenous malformations in the pediatric population (oral presentation), Congress Neuro Surgeons, Pediatric Section, Coronado, CA
- 4/12 Theodore N: Spinal biomechanics for the neurosurgeon (oral presentation). 2012 American Association of Neurological Surgeons Annual Scientific Meeting, Miami Beach, FL
- 4/12 Theodore N: Atlanto-occipital and atlanto-axial instability (oral presentation). 2012 American Association of Neurological Surgeons Annual Scientific Meeting, Miami Beach, FL
- 3/13 Martiroysan N, Preul M, Theodore N, Turner G, Kalani Y, Elhadi A: Diffusion tensor imaging offers correlation with severity of experimental models of spinal cord injury (oral). American Association of Neurological Surgeons/ Congress of Neurological Surgeons Section on Disorders of the Spine/Peripheral Nerves, Phoenix AZ

OTHER PROFESSIONAL ACCOMPLISHMENTS

- 2008-present "Top Doc Award," Neurological Surgeons, Phoenix Magazine
- 3/08 Healthcare Leadership Award, Surgeon Category, AZ Business Magazine, Phoenix, AZ
- 2009-present "Compassionate Doctor" award, Vitals.com
- 2012-present "America's Top Doctors," Castle Connolly Medical Ltd.
- 2012-present "Best Doctors in America," U.S. News & World Report
- 2016 "America's Most Honored Professionals: Top 1%," The American Registry