

**Harvard Medical School/Harvard School of Dental Medicine
Format for the Curriculum Vitae**

Date Prepared: January 5, 2009
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Education

Year	Degree	Field of Study	Institution
1986	BA	French	Dartmouth College
1990	MD	Medicine	Columbia University College of Physicians and Surgeons

Postdoctoral Training

Year(s)	Title	Specialty/Discipline	Institution
1990-1991	Intern	General Surgery	Columbia Presbyterian Medical Center
1991-1996	Resident	Neurosurgery	Georgetown University Medical Center
1992-1993	Resident	Pediatric Neurosurgery	Children's National Medical Center
1993	Resident	Neurotrauma	Shock Trauma Hospital, University of Maryland
1995-1996	Research	Pharmacology Fellow	Georgetown University School of Medicine
1996-1997	Chief Resident	Neurosurgery	Georgetown University Medical Center
1997-1998	Fellow	Pediatric Neurosurgery	Children's Hospital Boston

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
1995-1997	Instructor	Surgery	Georgetown University Medical Center
1998-2003	Instructor	Surgery	Harvard Medical School
2003-	Assistant Professor	Surgery	Harvard Medical School

Appointments at Hospitals/Affiliated Institutions

Year(s)	Position Title	Department	Institution
1997-	Staff Physician	Neurosurgery	Children's Hospital Boston
1997-	Staff Physician	Neurosurgery	Brigham and Women's Hospital
1998-	Staff Physician	Neurosurgery	Dana Farber Cancer Institute

Major Administrative Leadership Positions

- *Group positions according to the following categories: Local, Regional, National and International*

Year(s)	Position Title	Institution (<i>note if specific department</i>)
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Local

2000-	Associate Director of Neurosurgery Resident Education	Children's Hospital Boston, Neurosurgery
2000-	Associate Director of Neurosurgery Resident Education	Brigham and Women's Hospital, Neurosurgery
2001-2004	Admissions Committee	Harvard Medical School
2002	Founder and Director	Boston Chapter of ThinkFirst National Injury Prevention Program
2004-2008	Course Director	Sports-related Concussion and Spine Injury Harvard Medical School
2004-	Course Director	3 rd and 4 th year HMS Neurosurgery Rotation
2006-	Co-founder and Co-director	Brain Injury Program, Children's Hospital Boston
2008-	Founder and Faculty Advisor	Cushing Neurosurgical Society Student Interest Group Harvard Medical School

Regional

2006- Vice President of Massachusetts Neurosurgical Society Massachusetts Medical Society, Waltham, MA

National

2004-2007 Chairman of Efficacy Committee ThinkFirst National Injury Prevention Foundation

2005 Course Director for PC-06 Role of Intraoperative MR in Neurosurgery CNS Meeting Annual Meeting

2007- Chairman-elect ThinkFirst National Injury Prevention Foundation

2007 Membership Chair Pediatric Section of the AANS/CNS

Committee Service

- *Group positions according to the following categories: Local, Regional, National and International*

Year(s) of Membership	Name of Committee	Institution/Organization
Dates of Role #1	Title of Role #1	

Local

1998- 2005 Trauma Executive Committee Children's Hospital Boston
Co-founder, Brain Injury Program and Clinic

2001- Co-Founder, CUB Clinic for the multidisciplinary treatment of bowel and bladder disorders Children's Hospital Boston

2002- Boston Chapter ThinkFirst National Injury Prevention Foundation

2002- Sponsoring Surgeon

2006- 2006- Laser Safety Committee Chairman Children's Hospital Boston

2006- 2006- Boston Pediatric Neurosurgery Foundation Treasurer

2007- Graduate Medical Education Committee Children's Hospital Boston

National

2002- Board of Directors ThinkFirst National Injury Prevention Foundation

2004 Chair of Efficacy Committee
2007 Chairman-Elect of the Board

2002- Executive Committee CNS
2004-2007 Annual Meeting Scientific Committee CNS

2005-	Executive Committee	Pediatric Section of the AANS/CNS
2008-	Steering Committee	CDC Best Practice Guidelines for diagnosis, treatment and Management of Craniosynostosis

Professional Societies

Year(s) of Membership Dates of Role #1	Society Name Title of Role #1
1986- 1993-	American Medical Association (AMA) Congress of Neurological Surgeons (CNS)
2002-	Member, Executive Committee
2002-	Liaison, ThinkFirst National Injury Prevention Foundation
2004-2007	Member, Scientific Program Committee, Annual Meeting
1993-	American Association of Neurological Surgeons (AANS)
1998-2004	Member, Young Neurosurgeons Committee
2001-2004	Member, Education and Practice Management Committee
1995-2000	American Epilepsy Society
1996-2000	Society for Neuroscience
1998-	Joint Section on Pediatrics of the AANS/CNS
2004-	Member, Devices and Technology Committee
2007-	Chairman, Membership Committee
1998-	Joint Section of Trauma of the AANS/CNS
2000-	American College of Sports Medicine
2000-	Fellow
2003-	American Society of Pediatric Neurosurgeons
2003-	American Academy of Pediatrics
2003-	Fellow

Editorial Activities

- Ad hoc Reviewer
 - *Journal of Neurosurgery*
 - *Neurosurgery*
 - *Spine*
 - *British Journal of Sports Medicine*
 - *New England Journal of Medicine*

Honors and Prizes

Year	Name of Honor/Prize	Awarding Organization	Achievement for which awarded
1981	Summer Research Training Grant	National Science Foundation/ Indiana University	
1982	Scientific Scholarship	Bausch & Lomb	
1982	Regents Scholarship	New York State	
1982-1986	Daniel Webster Scholar	Dartmouth College	
1989-1990	Research Training Grant	NIH	
1990	Clinical Teaching Grant	Faculté de Médecine	
1995	Finalist, Clinical Research Compensation	Georgetown University	
1995-1996	Dixon Woodbury Clinical/Research Fellow	Epilepsy Foundation of America	
1997-1998	Shillito Fellow in Pediatric Neurosurgery	Children's Hospital Boston	
2002	Community Child Health Fund Grant to Institute Boston Chapter of ThinkFirst	Children's Hospital Boston	
2008	Elected to Teaching Academy	Children's Hospital Boston	
2008	\$5000 Award for extraordinary Contribution	Children's Hospital, Boston	

Report of Funded and Unfunded Projects

Funding Information

Past

2002-2003 PI Children's Community Health Fund
Founding of Boston Chapter of ThinkFirst National Injury Prevention Program.
Startup funds to initiate a Boston Chapter of ThinkFirst National Injury Prevention Program. We go to local area schools to teach injury prevention.

Current

2007- PI Medtronic \$1000 per enrolled patient
Prospective, non-randomized pediatric clinical study using the durepair dura regeneration matrix device for the repair of dura mater defects.

Report of Local Teaching and Training

Teaching of Students in Courses

Georgetown University

1994-1996	Neuroanatomy		
2 nd year medical students	Lecturer		3-hr sessions per week for 8 weeks
	Lab instructor		
1995-1997	Diagnosis and Management of Neurotrauma		
3 rd year medical students	Lecturer		1 hr biweekly throughout year

1995-1997	Problem Based Learning	
2 nd year medical students	Facilitator	3-hr sessions per week for 6 weeks

Harvard Medical School

1999-	Objective Structural Clinical Examinations	
4 th year medical students	Examiner	20-30 hours per year

2002-2005	Neuroscience course Lecturer	2 hours per week for 2 weeks
PhD students		

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

2005-	Lecturer/facilitator	3 hours per week
Run a weekly neurosurgery curriculum conference for all residents in program		

Clinical Supervisory and Training Responsibilities

Georgetown University

1996-1997	Chief Resident	10-hrs per week for 1 year
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Harvard Medical School

1997-1998	Ambulatory Neurosurgery Clinic	3 hours per week for 1 year
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1998-	Resident and Medical Student Teaching, Academic Attending	20-hrs per week (surgery) & 4-8 hrs per week (clinic)
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2000-	Resident Education for Neurosurgery, Associate Director	5 hours per week
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2004-	Medical Student Neurosurgery Rotations, Director	3-4 hours per week
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Formally Supervised Trainees

Year(s)	Name and degrees	Current position
Describe the type of supervision and the specific accomplishments of your trainee that occurred as a direct result of your supervision (maximum one sentence)		

Formal Teaching of Peers (e.g., CME and other continuing education courses)

Year(s)	Title(s) or topic(s) of talk(s)	Number of talks in single course
Course Name	Location(s) (city or country)	Sponsor/Source of Compensation
2000	The Changing Management of Severe Head Injury in Children	Single Presentation
Pediatric Trauma Course Children's Hospital		None

2000 Pediatric Trauma Course Children's Hospital	Pediatric Spine Injuries	Single Presentation None
2002 Pediatric Trauma Course, Childrens Hospital	Pediatric Head Injury	Single Presentation None
2003 Sports Concussion Conference, Boston	The Silent Danger in Sports	Single Presentation None
2004 Childrens Hospital Frontiers in Surgery, Bedford	Craniosynostosis	Single Presentation None
2004 HMS Sports Concussion and Spine Injury Conference, Boston	Sports-related spine injuries	Single Presentation None
2005 Harvard Medical School Sports-related Concussion and Spine Injury Conference, Foxboro	Sports-related spine injuries	Single Presentation None
2006-2008 Harvard Medical School Sports-related Conference on Concussion and Spine Injury	Sports-related spine injuries Boston	Single Presentation None

Local Invited Presentations

Year(s) Department and Institution where presented	Title of presentation	Type of presentation Sponsor/Source of compensation
1998 Children's Hospital Boston	Management of Severe Head Injury in Children	Surgical Grand Rounds None

1999 South Shore Hospital	Pediatric Tethered Cord Syndrome	Grand Rounds None
2000 Children's Hospital Boston	Management of Severe Head Injury in Children's	Surgical Grand Rounds None
2001 Beverly Hospital	Craniofacial Abnormalities in Children	Grand Rounds None
2001 Department of Emergency Medicine, Children's Hospital Boston	Management of Hydrocephalus and shunts	Grand Rounds None
2002 Department of Emergency Medicine, Children's Hospital Boston	Intracranial Hemorrhage	Grand Rounds None
2002 South Shore School Partnership for Health	Pediatric Minor Traumatic Brain Injuries	Community Lecture to School Nurses None
2005 Children's Hospital Boston, MA	Mild Traumatic Brain Injury in Children	Community Education Initiative Lecture Series None
2005 Hanger Orthotics Braintree, MA	Comprehensive Surgical and Non- surgical Techniques in the Treatment of Deformational Plagiocephaly and Craniosyntosis	Keynote Lecture None
2005 Children's Hospital Boston	Diagnosis and Treatment of Infant Skull Deformities	Pediatric Grand Rounds None

2006 Caritas St. Elizabeth's Medical Center	Infant Skull Deformities	Pediatric Grand Rounds None
2006 Lowell General Hospital	Craniosynostosis	Pediatric Grand Rounds None
2007 Children's Hospital Boston	Contemporary Management of Pediatric Skull Deformity	Anesthesia Grand Rounds None
2007 Children's Hospital Boston	Head Injury in Young Athletes- Return to Play Criteria	Marino Sports Medicine Symposium None
2008 Children's Hospital Boston	Pediatric Minor Head Injury	Pediatrics Grand Rounds None

Report of Regional, National and International Invited Teaching and Presentations

Regional, National and International Invited Presentations and Courses

- *Group presentations according to the following categories: Regional, National and International:*

Year Location	Title of presentation or name of course	Type of presentation/role(s) (note if abstract) Sponsor/Source of compensation
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Regional

1999 CNS, Boston	Prominent Basilar Emissary Veins in Syndromic Craniosynostosis	Single Presentation None
1999 CNS, Boston	The Role of Anthropometry in the Treatment of Craniosynostosis	Single Presentation None
2000 American College of Sports Medicine, Providence	Sports-related Head Injuries	Single Presentation None
2000 Providence	Sports-related Cervical Spine Injuries	Single Presentation None
2001 American College of Sports Medicine, Providence	Pathophysiology of Concussion	Single Presentation None

2002	Invited faculty for the AANS Oral Boards Review Course Hartford	Two day course None
2005	Neurotrauma American Association of Operating Room Nurses Advances in Clinical Practice	Single Presentation None
2005	Craniosynostosis and Plagiocephaly Easter Seals Pediatric Symposium, Portland	Single Presentation None
2008	Pediatric Neurosurgery: State of the Art Company Headquarters, Integra Neuroscience	Single Presentation Integra Neuroscience
National		
1998	The Effect of Surgery for Diasternatomyelia on Neurologic and Urologic Function Neurological Surgery of the AANS, Indiana	Single Presentation None
2000	The Effect of New Technologies on Craniofacial Anomalies CNS, San Antonio	Single Presentation None
2000	Return to Play Criteria after Concussion CNS, San Antonio	Single Presentation None
2000	Management of Raised Intracranial Pressure after Trauma North Shore University Hospital, New York	Visiting Professor None
2001	Pediatric Cervical Spine Injuries CNS, San Diego	Single Presentation None
2001	Biomechanics of Child Abuse CNS, San Diego	Single Presentation None
2001	Use of Intra-operative Magnetic Resonance Imaging for Pediatric Brain Tumors Join Section on Pediatric Neurosurgery of AANS/CNS New York	Single Presentation None
2002	Catastrophic Cervical Spine Injury American College of Sports Medicine, New Orleans	Single Presentation None

2002	Management of Sports-related Concussion American College of Sports Medicine, New Orleans	Single Presentation None
2002	Pediatric Severe Head Injuries Course on Pediatric Critical Care at CNS, Philadelphia	Single Presentation None
2002	Management of Craniofacial Disorders CNS, Philadelphia	Single Presentation None
2002	Craniofacial Reconstruction Philadelphia	Single Presentation None
2003	Invited faculty for the AANS Oral Boards Review Course Cincinnati	Two day course None
2004	Course Moderator for Section of Pediatric Neurosurgery, CNS Meeting, San Francisco	Single Presentation None
2004	Chair of Craniosynostosis Seminar CNS Meeting, San Francisco	Single Presentation None
2005	Pediatric Spinal Cord Tumors AANS, New Orleans	Single Presentation None
2006	Craniosynostosis CNS Annual Meeting, Chicago	Single Presentation None
2006	Course moderator Complex Pediatric Spinal Cord Anomalies, AANS Annual Meeting	Single Presentation None
2007	Infant Skull Deformities Hanger Orthotic and Prosthetic Annual Meeting, Reno, NV	Single (Keynote) Presentation Hanger Orthotics
2007	Development of the Pediatric Cervical Spine CNS Annual Meeting, San Diego	Single Presentation None
2007	Craniosynostosis CNS Annual Meeting, San Diego	Single Presentation None

2007	MROR: The integration of Imaging and Surgery Annual Meeting of the National Association of Children's Hospitals and Related Institutions, San Antonio	Single Presentation None
2008	Role of Endoscopy in the treatment of Craniosynostosis Controversies in the treatment of Craniofacial disorders, Phoenix, AZ	Single Presentation ImproMed
2008	Repair of Growing Skull fractures Controversies in the treatment of Craniofacial disorders, Phoenix, AZ	Single Presentation ImproMed

International

2006	Lecturer on Head and spine injuries: A Course in Pediatric Emergency Medicine Dubai, United Arab Emirates	Multiple Presentations Dubai Ministry of Health
2008	The Role of Cranial Orthoses in the Treatment of Deformational Plagiocephaly American Society of Pediatric Neurosurgery, Cabo, Mexico	Single Presentation None

Report of Clinical Activities and Innovations

Current Licensure and Certification

Year	Type of License or Certification
1991	National Board of Medical Examiners (Diplomate)
1992	District of Columbia (Medical License)
1993	Maryland (Medical License)
1997	Massachusetts (Medical License)
2001	American Board of Neurological Surgery (Diplomate)
2002	American Board of Pediatric Neurological Surgery (Diplomate)

Practice Activities

- *List all clinical activities, both those at Harvard and its affiliates and those outside Harvard, and for each indicate:*

Type of activity	Setting of practice	Name and location of practice
Pediatric Neurosurgeon	Children's Hospital Boston	Boston, MA

Clinical Innovations

I have been able to take advantage of Children's tremendous resources to develop an active and complex pediatric neurosurgery practice, and to become a leader in multi-disciplinary, collaborative clinical fields linking neurosurgery with subspecialties throughout the hospital. The cross-functional clinical teams I participate on have led to many clinical innovations which are changing care locally and nationally.

For Craniofacial surgery, we have developed and described multiple novel approaches:

- We have pioneered the use of particulate skull autograph to fill in cranial defects. This has been published both for primary and secondary skull defects.
- I am one of the leading surgeons internationally on the minimally invasive endoscopic correction of craniosynostosis, currently with over 100 patients. Aspects of this have been published, including the marked effect endoscopic surgery has on ocular disorders in coronal synostosis, and the major manuscripts describing the series are in preparation.
- We have also described a novel approach to dermoid tumors at the skull base, involving removal of the nasal bones to achieve complete resection.

In spinal surgery, the orthopedic surgeons and I have described several clinical advances.

- We have published the largest series of modern spinal instrumentation in the cervical spine in children, opening this field up to surgeons across the country. I am senior author on this publication.
- We have a manuscript in submission describing a posterior lateral trans-pedicular approach to correction of congenital spinal deformity in children with hemivertebrae, simplifying the correction from two surgeries to a single procedure. We are the countries leader in this field and have patients and surgeons coming to us from around the country to undergo and learn the technique.
- I am senior author on a manuscript in submission describing the use of intraoperative bone scan for the resection of spinal osteoid osteoma. We described the technique and currently have over 20 patients in the series. This will revolutionize the surgery for this disorder.

Report of Education of Patients and Service to the Community

Activities

2002- Sponsoring Physician ThinkFirst National Injury Prevention Foundation

Started local chapter of ThinkFirst. With a local network of nurses and educators from Children's Hospital, we go out to schools to teach free end efficacy proven injury prevention programs to 1-3rd graders.

2002- Board of Directors ThinkFirst National Injury Prevention Foundation

I was appointed to the board of directors of ThinkFirst as a liason from the Congress of Neurological Surgeons in 2002. I have risen from liason Board member to full board member, Chair of Efficacy, and currently Chairman-elect of the Board of Directors. ThinkFirst is the leading national brain and spinal cord injury prevention foundation. We serve over 275 national chapters and are represented in over 13 other countries, impacting over a million children per year.

Recognition

Year	Name of award/recognition	Organization conferring recognition
2005-	Awarded Best Doctor in Neurosurgery	Best Doctors
2004-	Top Physicians in Neurosurgery	Guide to America's Top Physicians

Report of Scholarship

Publications

- **Peer Reviewed Publications in print or other media**

Research Investigations

1. Lustgarten J, Proctor M, Haroun R, Avellino A, Pindzola A, Kliot, M. Semipermeable polymer tubes provide microenvironment for in vivo analysis of dorsal root regeneration, *Journal of Biomechanical Engineering*, 1991; 113: 184-188.
2. Fornai F, Dybdal D, Proctor M, Gale K. Focal intracerebral elevation of L-lactate is anti-convulsant. *European Journal of Pharmacology*, 1994; 254.
3. Proctor M, Fornai R, Afshar KJ, Gale, K. The role of nitric oxide in the propagation of limbic seizures. *Neuroscience*, 1997; 76:4:1231-1236.
4. Robson CD, Mulliken JB, Robertson RL, Proctor M, Steinberger D, Barnes PD, McFarren A, Muller U, Zurakowski D. Prominent basal emissary foramina in syndromic craniosynostosis: correlation with phenotypic and molecular diagnosis. *AJNR*, 2000; 21(9): 1707-17.
5. Soriano SG, Cowan DB, Proctor M, Scott RM. Levels of soluble adhesion molecules are elevated in the cerebrospinal fluid of children with Moyamoya syndrome. *Neurosurg*, 2002 50(3): 544-549.

Other Peer-reviewed publications

1. Nikas DC, Proctor M, Scott RM. Spontaneous thrombosis of vein of galen aneurysmal malformation. *Pediatric Neurosurgery*, 1999;31:33-39.
2. Proctor M, Bauer SB, Scott RM. The effect of surgery for split spinal cord malformation on neurologic and urologic function. *Pediatric Neurosurgery*, 2000; 32: 13-19.
3. Proctor M, Scott RM. Long term outcome for patients with split spinal cord malformation. *Neurosurgical Focus*, 2000;10(1).
4. Rogers, GF, Proctor M, Mulliken JB. Unilateral fusion of the frontosphenoidal suture: a rare cause of synostotic frontal plagiocephaly. *Plastic and Reconstructive Surgery*, 2002; 110(4): 1011-21.
5. Proctor, M. Spinal Cord Injury. *Critical Care Medicine*, 2002, 30(11), 489-499.
6. Rahbar, R, Shah, P, Mulliken JB, Robson CD, Perz-Atayde AR, Proctor MR, Kenna MA, Scott RM, McGill TJ, Healy GB. The presentation and management of nasal dermoid. *Arch Otolaryngolog, Head Neck Surg*, 2003;129:464-471.
7. Ohaegbulam CO, Woodard E, Proctor M, Occipitocondylar hyperplasia: an unusual craniocervical junction abnormality causing myelopathy. *J. Neurosurgery*, 2005, 104(4): 379-381.
8. Rogers GF, Proctor MR, Greene AK, Mulliken JB. Frontonasal osteotomy to facilitate removal of an intracranial nasal dermoid. *J Craniofac Surg*. 2005 Jul;16(4):731-6.
9. Zimmerman MA, Goumnerova LC, Proctor M, Scott RM, Marcus K, Pomeroy SL, Turner CD, Chi SN, Chordas C, Kieran MW. Continuous remission of newly diagnosed and relapsed central nervous system atypical teratoid/rhabdoid tumor. *J Neurooncol*. 2005 Mar;72(1):77-84.

10. Dunn IF, Proctor MR, Day AL. Lumbar Spine Injuries in athletes. *Neurosurg Focus*, 2006, 21 (4): 1-5.
11. Ullrich NJ, Robertson, R, Kinnamon DD, Scott RM, Kieran MW, Turner CD, Chi SN, Goumnerova L, Proctor M, Tarbell NJ, Marcus KJ, Pomeroy SL. Moyamoya following cranial irradiation for primary brain tumors in children. *Neurology*, 2007. 68 (12): 932-8.
12. Saad AG, Sachs J, Turner CD, Proctor M, Marcus KJ, Wang L, Lidov H, Ullrich NJ. Extracranial metastases of glioblastoma in a child: case report and review of the literature. *J Pediatr Hematol Oncol*. 2007; 29(3): 190-194.
13. Mislow JMK, Proctor MR, McNeely PD, Greene AK, Rogers GF. Calvarial defects associated with neurofibromatosis Type I. *J Neurosurg* (6 Suppl Pediatrics) 2007; 106: 484-489.
14. Maher CO, Goumnerova L, Madsen JR, Proctor M, Scott RM. Outcome following multiple repeated spinal cord untethering operations. *J Neurosurg* (6 Suppl Pediatrics) 2007; 106:434-438.
15. Levy RL, Rogers GF, Mulliken JB, Proctor MR, Dagi LR. Astigmatism in unilateral coronal synostosis: Incidence and laterality. *J AAPOS*, 2007 Aug;11(4):367-372.
16. Greene AK, Mulliken JB, Proctor MR, Rogers GF. Primary grafting with autologous cranial particulate bone prevents osseous defects following fronto-orbital advancement. *Plast Reconstr Surg*. 2007 Nov;120(6):1603-11.
17. Hedequist D, Hresko T, Proctor M. Modern Cervical Spine Instrumentation in Children. *Spine*. 2008;33(4): 379-383.
18. Ohaegbulam CO, Dunn IF, D'Hemecourt P, Proctor MR Lumbar epidural hematoma associated with spondylolyses: a report of three cases. *J Neurosurg Spine*, 2008; 8(2): 174-180.
19. Greene AK, Mulliken JB, Proctor MR, Rogers GF. Pediatric cranioplasty using particulate calvarial bone graft. *Plast Reconstr Surg*. 2008 Aug;122(2):563-71.
20. Greene AK, Mulliken JB, Proctor MR, Meara JG, Rogers GF. Phenotypically unusual combined craniosynostoses: presentation and management. *Plast Reconstr Surg*. 2008 Sep;122(3):853-62.
21. Hedequist D, Proctor M. Screw fixation to C2 in children: a case series and technical report. *J Pediatr Orthop*. 2009 Jan-Feb; 29(1): 21-5
22. Robinson, S, Proctor, MR. Diagnosis and Management of Deformational Plagiocephaly: A Review. *J. Neurosurg Peds*. Accepted for publication.
23. MacKinnon, S, Rogers, GF, Gregas, M, Proctor MR, Mulliken JB, Dagi L Treatment of unilateral coronal synostosis by endoscopic strip craniectomy or fronto-orbital advancement: Ophthalmologic findings. *JAAPOS*. Accepted for publication.

- **Non-peer reviewed scientific or medical publications/materials in print or other media**

Reviews, chapters, monographs and editorials

1. Proctor M, Martuza R. Trauma. In: Samuel, editor. *Manual of Neurology*, Fifth Edition, Little Brown and Company; 1994, p. 250-276.
2. Proctor M, Gale K. Basal Ganglia and Brain Stem Anatomy and Physiology, In: Engel and Pedley, editors. *Epilepsy: A Comprehensive Textbook*, New York: Lippicott-Raven; 1998. p. 353-368.
3. Proctor M, Scott RM Special Considerations for Children in Neurosurgery, In: Black and Kaye, editors. *Operative Neurosurgery*, London: Harcourt Brace; 2000, p.33-44.
4. Proctor M, Cantu RC. Head and neck injuries in young athletes, *Clinics in Sports Medicine*, 2000; 19(4): 693-715.
5. Proctor M, Barrow M. Neurosurgical Aspects of Non-accidental Trauma in Children, In: Batjer and Loftus, editors. *Textbook of Neurological Surgery*, Lippincott, Williams and Wilkins; 2003, p 1065-1072.

6. Proctor M, Cantu RC. Neck Injuries, In: Frontera, Micheli, Herring, Silver editors: Clinical Sports Medicine: Medical Management and Rehabilitation., Elsevier Press, 2006, p 331-342.
7. Gale K, Proctor M, Veliskova J, Nehlig A. Basal Ganglia and Brainstem Anatomy and Physiology, In: Engel and Pedley, editors. Epilepsy: A Comprehensive Textbook, 2nd Edition, Philadelphia: Wolters Kluwer/Lippincott Williams and Wilkins; 2007. p. 367-384.
8. Slotkin JR, Mislaw JMK, Day AL, Proctor MR. Pediatric Disk Disease. Neurosurg Clin N Am, 2007, 18 (4), 659-667.
9. Maher, CO, Smith E, Proctor M, Scott RM: Spinal Vascular Malformations, In: Kim DH, Betz RR, Huhn SL, Newton PO, eds., Surgery of the Pediatric Spine. Thieme, New York, in press.
10. Ghia A, Proctor MR. Infections of the Spinal Axis, In Albright L, Pollack A, Adelson D eds. Pediatric Neurosurgery. Thieme. New York. In press.
11. Proctor MR. Intracranial subdural hematoma in children: Epidemiology, anatomy, and pathophysiology. In: UpToDate, Basow, DS (Ed), UpToDate, Waltham, MA, 2008.
12. Proctor MR. Intracranial subdural hematoma in children: Clinical manifestations, evaluation, and management. In: UpToDate, Basow, DS (Ed), UpToDate, Waltham, MA, 2008.
13. Ahn ES, Proctor, MR. Intracranial epidural hematoma in children: Clinical features, evaluation, and management. In: UpToDate, Basow, DS (Ed), UpToDate, Waltham, MA, 2008.
14. Ahn ES, Proctor, MR. Intracranial epidural hematoma in children: Epidemiology, anatomy and pathophysiology. In: UpToDate, Basow, DS (Ed), UpToDate, Waltham, MA, 2008.

Books

1. Proctor M, Black P, Editors, Minimally Invasive Neurosurgery. Humana Press, Totowa, NJ, 2005.
2. Proctor MR, Associate Editor, Yearbook of Neurology and Neurosurgery, Elsevier Mosby, Philadelphia, PA, 2007.
3. Proctor MR, Associate Editor Yearbook of Neurology and Neurosurgery, Elsevier Mosby, Philadelphia, PA, 2008.

Letters to the Editor

1. Proctor M, Scott RM. Letter to the Editor. Redefining the magnetic resonance imaging reference level for the cerebellar tonsil: a study of 170 adolescents with normal versus idiopathic scoliosis. *Spine* 29(1): 105. 2004.

Narrative Report

Since the completion of my training in 1998, I have worked at Harvard Medical School to enhance the world-class pediatric neurosurgical service at Children's Hospital by strengthening clinical and academic collaborations. My leadership and initiative has been instrumental in forging and strengthening relationships between Neurosurgery and multiple other departments to improve patient care and advance the national reputation of our clinical teams. My clinical practice has focused on three areas: craniofacial abnormalities, spinal disorders, and trauma to the pediatric brain and spine. Approximately seventy percent of my time is clinical, twenty percent teaching and 10 percent research.

Our Craniofacial Team is a recognized leader in the treatment of craniosynostosis and attracts patients from around the world; I have brought to this team a unique expertise in endoscopic surgery, and the care of craniofacial patients encompasses 15-20 hours per week. The orthopedic/neurosurgical spinal team treats children with complex disorders of the spine and is one of the leaders in the field in the use of instrumentation for the pediatric cervical spine. I co-founded, along with Gastroenterology, Urology and General Surgery, a clinic for the treatment of incontinence of spinal cord etiology, a unique collaborative clinic available only at Children's Hospital. I am part of a joint collaboration among Neurosurgery,

Trauma Surgery, Neurology, Neuropsychology, and Physiatry that established a unique Brain Injury Program that offers much-needed and previously-unavailable care to pediatric brain trauma patients. This effort has resulted in major philanthropic support, a full-time nurse practitioner, and as we are starting to accrue large numbers of patients will lead to major research developments and firmly place Children's Hospital as the national leader in pediatric minor and severe head injury. I work with Sports Medicine to maintain an active clinical practice in sports-related injuries, where we see 20-30 concussion patients each week, and I am presenting the largest series ever of herniated lumbar disks in children at our annual meeting in March, 2009. I co-direct the annual HMS Neurological Sports Injuries conference, which is now considered the premier national concussion meeting, this year being endorsed by the American Association of Neurological Surgeons. We have sold out the conference for the past three years with almost 300 attendees including coaches, trainers and physicians and physicians from school and professional teams.

One of the most extensive collaborative efforts I have been participated in has been the development of the unique intra-operative MRI at Children's Hospital, establishing our department as leaders in the field of operative MRI technology. I was involved in this project from its inception, working with many departments including hospital administration, Anesthesia, Radiology, and Engineering. This effort has resulted in a great clinical success, has been presented at many national meetings, and was highlighted in a live brain surgery webcast which I moderated and which received a national "Webby" award.

Teaching of residents and students has remained of paramount importance in all of these venues. I have been Associate Residency Program Director since 2000. In addition, I am the course director for the HMS neurosurgery rotations, which includes approximately 10-20 students taking a fourth year elective and 20 students who do a one week elective during their third year surgery rotation. In 2008 I was the founder of the Cushing Neurosurgical Student Interest Group at the medical school. I brought together a group of students with expressed neurosurgical interest to form this as an official student organization, and I serve as faculty advisor. In addition to clinical teaching I direct a 2 hour formal education conference every week for the neurosurgery residents. I was recently selected to join the Children's Hospital Teaching Academy, with the focus of my project being the more formal integration of neurosurgery into medical school training.

I have been able to take advantage of Children's tremendous resources to develop an active and complex pediatric neurosurgery practice, and to become a leader in multi-disciplinary, collaborative clinical fields linking neurosurgery with subspecialties throughout the hospital. The clinical teams I participate on have brought out my complementary strengths as a surgeon and team player, and I will continue to strive towards clinical excellence by working with others to offer superb care and cutting-edge technology to our patients. My clinical activities continue on the community service front where I am the founder of the Boston chapter, and Chairman-elect of the national Board of Directors, for ThinkFirst National Injury Prevention Program. This passion for clinical excellence and community service has culminated in my role as educator, and I remain passionate about training our clinical and academic leaders of the future.