### <u>Curriculum Vitae</u>

#### FRASER CUMMINS HENDERSON SR., M.D.

The Metropolitan Neurosurgical Group, LLC 1401 Mercantile Lane, Suite 341, Upper Marlboro, Maryland 20774

### **EDUCATION**

Bachelor of Arts, University of Virginia, May 1978
Doctor of Medicine, University of Virginia, May 1982
Internship (PGY 1), General Surgery, Naval Regional Medical Center, Portsmouth, Virginia 1982-1983
Residency (PGY 2-5) under Phanor Perot Jr., M.D., PhD. Department of Neurosurgery, Medical University of South Carolina, Charleston, South Carolina 1984-1988
Chief Resident (PGY 6) under Phanor Perot Jr., M.D., PhD. Department of Neurosurgery, Medical University of South Carolina, Charleston, South Carolina 1984-1988
Fellowship, International Spine Fellow, under Professor Alan Crockard FRCS, Department of Surgical Neurology, The National Hospitals for Neurology and Neurosurgery, Queen Square, London, Great Britain, 1992

# **BOARD CERTIFICATION**

National Board of Medical Examiners:	
Part I (1980)	
Part II (1982)	
Part III (1983)	
American Board of Neurological Surgery:	
Part 1: Written exam in 2 <sup>nd</sup> year of residency	1986
Part 2: Oral board exam (after fellowship)	1993

### MEDICAL LICENSURE

2019 - 2022	The Republic of Kenya
1996 - present	State of Maryland Medical License
1984 - present	South Carolina Medical License
1995 - present	Virginia Medical License
2017 - 2020	United Kingdom
2020- 2022	District of Columbia Medical License (not renewed)
1993 - 1995	Commonwealth of Pennsylvania Medical License (not renewed)

# **PRACTICE LOCATIONS**

Georgetown University Hospital, Washington D.C.	1994 - 2010
Doctor's Community Hospital, MD	2008 - 2022
Shady Grove Adventist, MD	2010 - 2020
Holy Cross Hospital, Silver Spring, MD	2012 - Present
Greater Baltimore Medical Center, Baltimore, MD	2013 - Present
University of Maryland, Capitol Region Medical Center	2020 - Present

### HONORS AND AWARDS

1971	Commonwealth University Scholarship, Sydney, Australia, 1971
1983	Navy Commendation Medal
1983	Meritorious Unit Commendation
1983	Navy Unit Citation
1983	Navy Expeditionary Medal
1991	Fleet Marine Force Service Medal
1991	National Defense Service Medal
1991	Kuwait Liberation Medal
1991	South West Asia Service Medal
1983 & 1991	Sea Service Deployment Ribbons
1998	Certificate of Excellence, Symposium NeuroRadiologyogicum
	XVI, Phila. PA, May 15-17, 1998, for "Association of Lumbar
	Synovial Cysts with Facet Effusion", Schellinger D, W, Henderson
	F.
2008	Top Surgeons 2008, Consumers Research Council of America
1998-2006	Washington Top Doctors
2001-2010	Best Doctors in America
2004-2008	Top Physicians, Consumers Research Council of America
1996-2004	US News and World Report—Best Departments in USA
2008	Top Doctors for 2008, Nichols Institute
2003	Best Abstract, CyberKnife Users' Meeting (Spine Session),
	November 2003, Napa, CA, for "CyberKnife Radiosurgery of
	Chordomas",
2005	Best Abstract, Worldwide CyberKnife Users' Meeting
	"CyberKnife Radiosurgery in Previously Irradiated Spines",
2006	Best Abstract, Worldwide CyberKnife Users' Meeting Carlsbad,
	CA for "Robotic Stereotactic Irradiation of Spinal Chordomas and
	Chondrosarcomas—A Case for Dose Escalation
2008	Mayfield Neurosurgical Research Award, AANS/CNS Joint
	Section for Spine and Peripheral Nerve, Orlando FLA
2010	Chiari Syringomyelia Foundation Award for Distinguished Service
2011	Doctor of year R.I.S.E.S Award . Shady Grove Adventist Hosp
2012	Castle and Connally: Top Doctor, Neurosurgery 2012,

2012	Expert: National Organization Rare Disorders Physician Database
2012	Recognition of Service, ILC, Canadian Rare Diseases 2012
2012	Leading Physician, 2012, Int. Assoc. Health Care Professionals
2013	Patients Choice Award
2013	Peer Reviewed Physician's, Patients Choice Award
2014	Castle Connally's Top Doctor for 10 Year
2015	Nominated, Schwartz National Compassionate Caregiver Award
2018	Top Doctor Award, Top Neurosurgeon in the Nation, Health
Тар	
2019	Leading Physician, 2019, Int. Assoc. Health Care Professionals
2022	Lifetime Achievement Award, Scottsdale AZ, EDS Global Conf.
2023	<b>Congressional Certificate of Special Recognition</b>

# **PREVIOUS PROFESSIONAL POSITIONS**

1973 - 1974	Manager, Bullo River Cattle Station, Northern Territory, Australia
1983 - 1984	Task Force Medical Officer, Ship's Medical Officer, USS Iwo
	Jima (LPH 2), Multi-National Peace Keeping Force, Beirut,
	Lebanon 1983-1984
1989 - 1990	Instructor, Department of Neurosurgery, Medical University of
	South Carolina, Charleston, South Carolina
1989 - 1990	Chief of Neurosurgery, Department of Surgery, Veterans Hospital,
	Charleston, South Carolina
1990 - 1994	Director of Spine, Department of Neurosurgery, National Naval
	Medical Center, Bethesda, Maryland
1993	Assistant Professor, Department of Surgery, Uniformed Services,
	University of Health Sciences, Bethesda Naval Hospital, Bethesda,
	Maryland
1994 - 2008	Director, Neurosurgery of the Spine and Craniocervical Junction,
	Georgetown University Medical Center, Washington, D.C.
1995 - 2008	Director of Spine Tumor Center, Georgetown University Medical
	Center, Washington, D.C.
1996 - 2008	Medical Director, Neurosurgical Intensive Care and Step-down
	Units, Georgetown University Hospital, Washington, D.C.
2000 - 2005	Associate Professor of Neurosurgery, Georgetown University
	Hospital, Washington, D.C.
2002 - 2008	Co-Director, CyberKnife Radiosurgery, Georgetown University
2004 - 2008	Co-Director, Division Neuro-Oncology and Childhood Cancer,
	Lombardi Cancer Center, Georgetown University Hospital,
	Washington, D.C.
2005 - 2008	Professor of Neurosurgery, (scholar tract) Georgetown
	University
2005 - 2008	Associate Professor of Radiation Medicine, GUH
2008 - 2010	Clinical Professor, Department of Radiology, Imaging Science and
	Information Systems, Georgetown University
2008 - Present	Director, Metropolitan Neurosurgery Group
2010 - Present	Chief, Neurosurgery, Doctors Community Hospital, Lanham MD

2010- 2020	Staff neurosurgeon, Adventist Hospital, Shady Grove, MD
2011 - Present	Cure Foundation, Director of Neuroscience
2012 - 2017	Executive Board Member, Chiari Syringomyelia Foundation
2012 - 2017	Executive board member, ILC, Toronto Canada
2013 - 2016	Executive Board member, The Coalition Against Pediatric Pain
2014 - Present	Executive Board Member, Ehlers Danlos National Foundation
2019 - 2022	Chair, Neurology Work Group – Ehlers Danlos Society
2021- present	Executive Board Member- Bobby Jones Chiari Foundation
2021-2023	Medical Advisory Board Dysautonomia Society
2021- present	Chief Medical Officer, Hemostemix, Inc

## MILITARY SERVICE

1975	U.S.M.C., Officer Training, Camp Upshur Quantico, Virginia
1975 - 1977	United States Marine Corps, Reserve Platoon Leaders Class
1979 - 1982	United States Navy, Ensign, University of Virginia, Virginia
1982 - 1987	Lieutenant, Medical Corps
1983 - 1984	Ship's Medical Officer, USS Iwo Jima (LPH-2)
1983	Task Force Medical Officer, Multi National Peace Keeping Force,
	Beirut, Lebanon
1987- 1991	Lieutenant Commander
1990 - 1991	Brigade Neurosurgeon, Fourth Marine Expeditionary Brigade, 2nd
	Marine Division, Desert Shield/Desert Storm Campaigns, Persian
	Gulf War
1993- 1994	Commander, USNR
1990 - 1994	Bethesda Naval Hospital, Bethesda, Maryland

# **PROFESSIONAL SOCIETIES**

1985 - 1990	Charleston Medical Society
1991 - Present	Cushing Society
1991 - Present	Washington Academy of Neurosurgeons
1991 - Present	AANS/CNS Joint Section Spine Peripheral Nerves
1994 - Present	AANS
1997 - Present	AANS/CNS Trauma and Critical Care
2003 - Present	CyberKnife Society
2006 - Present	AANS Tumor Section
2009 - Present	Med Chi Maryland Medical Association
2009 - Present	The Washington Clinical Pathology Society
2009 - Present	Bobby Jones Chiari Syringomyelia Foundation
2010-present	The Ehlers –Danlos Society
2019 - Present	Pan African Academy of Christian Surgeons
2019- present	The Maryland Society of Neurosurgeons

### **MEMBERSHIPS**

Society of the Cincinnati, Maryland
Aztec Society
Jefferson Society, University of Virginia
The Raven Society, University of Virginia
The Metropolitan Club, Washington
Vansville Farmers Club
The Georgetown Assembly
The Most Venerable Order of St John

# **TEACHING ACTIVITIES**

1994 - 2002	Director Medical Student Education—Rated A in teaching
1994 - 2004	Monthly Medical Student Core Lectures
1994 - 2008	Grand Rounds—Neurology, Neurosurgery, Bi-Annual Lectures
1994 - 2008	Director Neurosurgical Elective Education
1994 - 2008	Director Brain and Spine Acute Care
1995 - 2000	Co-Director, International "Hands-On" Spine Conference
	Uniformed Services Health Science University, Bethesda, MD
2001 - 2004	Neuro Oncology Tumor Board
2003	Conference Chairman, "International Symposium for Extracranial
	Radiosurgery", Washington, DC
2003	Conference Chairman, "Spinal Surgery: New Innovation and
	Frontiers", Baltimore, MD
2003 - 2004	PhD Dissertation Committee, Zegang Dong
2005	Lombardi Research and Oncology Grand Rounds, Georgetown
	University Hospital
2007	Visiting Professor: UCLA, Los Angeles, CA
2008	Visiting Professor: MUSC, Charleston, SC
2009	Visiting Professor: The Cleveland Clinic, Cleveland, OH
2010	Visiting Professor, Duke University
2009 - 2011	Greater Metropolitan Washington CSF Chapter, lecture
2010 - 2020	Invited speaker, Ehlers Danlos Syndrome National Conference
2011 -2014	Honored Guest Speaker, National Conquer Chiari, VA
2011	Chairman, Chiari/Ehlers Danlos Syndrome Colloquium.
2013	The Coalition Against Pediatric Pain, Speaker, August 2013
2013	Chair, CSF Colloquium on Craniocervical Hypermobility
2013	Visiting Professor, Drexel University, Pa
2014	Visiting Professor, Medical University South Carolina, SC

2014	Invited Speaker, EDNF National meeting, Houston, TX
2014	Invited Speaker, Chiari March
2015-present	Weekly Nursing lecture series, Doctors Hospital
2015	CSF Annual Meeting, AANS, Washington D.C.
2015	The Hypermobility Conference, London University College
2015	Complex Spine Conference, National Hospital for Neurology and
	Neurosurgery, Queen Square, London ,Great Britain
2015	British Ehlers Danlos Syndrome, Annual Conference, Boreham
	Wood, Great Britain, June 13th, 2015
2016	Chairman, Neurology Section, Ehlers Danlos Society International
	Meeting, New York
2016	Visiting Professor, Methodist Hospital, Houston, Texas
2018	USU Bethesda, MD, Medical Lectures
2021- present	UMM Capitol Region Adjunct professor
1	
<b>PUBLIC SERVICE</b>	
1983	Henderson, F.C., "Lessons Learned from the Terrorist Bombing of
	the BLT in Beirut, Lebanon, October 23, 1983" Situation Report,
	USN.
1990	Henderson, F.C., "Preparation and Handling of Mass Casualties"
	Lecture, Televised presentation for all embarked USN personnel,
	2nd FSSG, 4th Marine Expeditionary Brigade/2nd Marine
	Division, Persian Gulf
2003 - 2004	Guest Editor: Seminars in Spine Surgery, "Stretch Myelopathies"
2003 - 2008	Founder, Director: Neuroscience Hope Fund (travel, meals and
	accommodation for indigent patients)
2005 - 2006	Guest Editor: "Cystic Lesions of the Spine"
2004	Guest Editor: Medical Science Monitor Journal
2006	Guest Editor: Neurosurgery Journal
2006	Guest Editor: Spinal Cord Journal
2006	Medical Advisor: Spinal Cord Tumor Association
2000	Clinical Advisory Board: Accuracy, Sunnydale, CA
	Clinical Advisory Board: National Functional Genomics Center,
	Moffitt Cancer Center, FL
2008	Society of Cincinnati, Committee for Charitable Gifts and
2008	Education
2010	Gala Host, Steering Committee, "Night of Light Children's Gala"
2010 2011 - Present	Executive Board Member, Chiari Syringomyelia Foundation
2011 - Present	Director of Neuroscience, CURE Foundation
2011 - Present 2011 - Present	
2011 - Present 2011	Guest Editor, Science Journal Speaker, Society of Cincinneti, The Pottle of Prenduzying
2011 2011	Speaker, Society of Cincinnati, The Battle of Brandywine
	Conquer Chiari, Invited Speaker, Frederick, Md
2012 - Present	Editor, Journal Case Reports in Neurological Medicine
2012 - Present	Editor, The Spine Journal
2017 - Present	Officer, Order of St. John
2019- present	Reviewer, World Neurosurgery

2021 - 2023	Missionary Staff Neurosurgeon,	Tenwek Hospital, Bomet, Kenya
2019—present	Director, The Fund to Conserv	e / U.S. State Department

#### TELEVISION /PRESS APPEARANCES

1991	CNN, Neurosurgical Treatment of Troops in the Gulf War
1996	Lumbar disc surgery
2001	NBC Local News, Head trauma and importance of helmets
2005	CNN Health: Documentary re my invention Telescopic Spacer
2008	NBC Nightly News, re Senator E. Kennedy (Treatment of
	Glioblastoma) (6/3/2008)
2008	MSNBC, three segments re Senator Kennedy (6/3/2008)
2008	Turkish-American TV Hour guest, discussion CyberKnife (6/2008)
2011	CBS News, Richmond, VA, Ehlers Danlos Syndrome (7/2011)
2014	Washington Post, Health and Science, 3/11/14 "Stretched to the
	Limit : Spinal Surgery allows patient to walk again".

### **PUBLICATIONS**

- 1. Rozich, J.; Holley, H.P.; Henderson, F.C.; Gardner, J.; Nelson, A., "*Cauda Equina Syndrome Secondary to Disseminated Zygomycosis*", JAMA 260-24:3638-3640, 1988.
- 2. Henderson, F.C.; Stevens, J.M.; Crockard, A.C., "Spinal Cord Edema Due to Venous Stasis", Neuroradiology 35(4) 312-315, 1992.
- 3. Henderson, F.C.; Geddes, J.F.; Crockard, H.A., "*Neuropathology of the Brainstem and Spinal Cord in End Stage Rheumatoid Arthritis: Implications for Treatment*", Annals of Rheumatology 52:629-637, 1993. (Extended Report)
- 4. Howard, R.S.; Henderson, F.C.; Hirsch, N.P.; Stevens, J.M.; Kendal, B.E.; Crockard, H.A., *"Respiratory Abnormalities Due to Craniocervical Junction Compression in Rheumatoid Disease"*, Annals of Rheumatic Diseases, 53:134-136, 1994.
- Hong CC, Henderson FC. Urinary tract infections associated with spinal cord injury in rats". J Med Sci 9 (5)317-325 1989
- 6. Feigenbaum, F.; Sulmasy, D.P.; Pellegrino, E.D.; Henderson, F.C., "Spondyloptotic Fracture of the Cervical Spine in a Pregnant, Anemic Jehovah's Witness: Technical and Ethical Considerations", Journal of Neurosurgery 87: 458-463, 1997.
- 7. Sheikh, S.; Henderson, F.C.; Gomes, M.; Montgomery, E., "Intravascular Fasciitis Clinically Mimicking an Axillary Peripheral Nerve Sheath Tumor; Case Report and

*Discussion of the Literature.*" VASC ENDOVASCULAR SURG 33: 439-446, July/August 1999

- Bhatnagar, A. Rehm P, Henderson FC, Ellmer, T. ,Davis, B. Feigenbaum, F. (1997). Bone SPECT in evaluation of patients with spinal fusion. Clinical Nuclear Medicine - CLIN NUCL MED. 22. 10.1097/00003072-199704000-00026.
- 9. Maher, C.O.; Henderson, F.C., "Lateral Exit-Zone Stenosis and Lumbar Radiculopathy." Journal of Neurosurgery (Spine 1) 90:52-58, 1999.
- Schellinger, D.; Lin, C.S.; Fertikh, D.; Lee, J.S.; Lauerman, W.C.; Henderson, F.C.; Davis, B., "Normal Lumbar Vertebrae: Anatomic, Age, and Sex Variance in Subjects at Proton MR Spectroscopy – Initial Experience 1." Radiology 215:910-916, 2000.
- 11. Sullivan KL, Henderson FC. Postoperative management program for rats with spinal injuries. Lab Animal Sci 38 (\$) 507- PAGE 1988
- 12. Hum, B.A.; Feigenbaum, F.; Cleary, K.R.; Henderson, F.C., "Intraoperative Computed Tomography for Complex Craniocervical Operations and Spinal Tumor Resections." Journal of Neurosurgery 47: 374-381, 2000.
- 13. Voyadzis, J.M.; Bhargava, P.; Henderson, F.C., "*Tarlov Cysts: A Study with Review of the Literature*." Journal of Neurosurgery (Spine 1) 95:25-32, 2001.
- Coumans, J.C.E.; Marchek, C. P.; Henderson, F.C., "Use of the Telescopic Plate Spacer in Treatment of Cervical and Cervicothoracic Spine Tumors" Journal of Neurosurgery 51: 417-426, 2002.
- 15. Sandhu, F.A.; Pait, T.G.; Benzel, E.C.; Henderson, F.C., "Occipito-Cervical Fusion and Stabilization with the Inside-Outside Technique in Patients with Rheumatoid Arthritis" Spine 414-419, 2003.
- 16. Kim, D.H.; Vaccaro, A.R.; Henderson, F.C.; Benzel, E.C., "Molecular Biology of Cervical Myelopathy and Spinal Cord Injury: Role of Oligodendrocyte Apoptosis" The Spine Journal, Vol. 3, Issue 6: 510-519, November-December 2003.
- 17. Gwinn, R.; Henderson, F.C., "*Transdural Herniation of the Thoracic Spinal Cord: Untethering Through A Postero-lateral Trans-pedicular Approach*" Journal of Neurosurgery (Spine 10) 2: 223-227, 2004.
- Degen, J.W.; Gagnon, G.J.; Voyadzis, J-M.; McCrae, D.A.; Lunsden, M.; Dieterich. S.; Molzahn, I.; Henderson, F.C., "*CyberKnife Stereotactic Radiosurgical Treatment of Spinal Tumors for Pain Control and Quality of Life*" Journal of Neurosurgery (Spine2), 540-549, 2005

- 19. Gagnon GJ, Henderson FC, Liau J, Balfour ECollins BT, Harter W, McRae D Radiation Retreatment of the Spine Using CyberKnife Radiosurgery. Int J RadOnc Bio Phy 63(1) DOI:10.1016/jijrobp.2005.07.750
- Henderson, F.C.; Geddes, J.F.; Vaccaro, A.R.; Woodard, E.; Berry, K.J.; Benzel, E.C., "Stretch- Associated Injury in Cervical Spondylotic Myelopathy: New Concept and Review" Neurosurgery 56, pp 1101-1113, May 2005.
- 21. Feigenbaum, F, Henderson, F.C. "Giant Sacral Meningeal Diverticula: Surgical Indications of the Thecal Tip Sign.". Journal Neurosurgery Spine, 5 443-446,2006.
- 22. McRae, D.A., Lundsten, M., Dieterich, S., Gagnon, G.J., Henderson, F.C. "Early Experiences with Fiducial Tracking for Spinal Treatments with the CyperKnife." Medical Physics 29(8) Aug.2002
- Makuria, A.T., Henderson, F.C., Rushing, E.J., Hartmann, D.P., Azumi, N., Ozdemirli. *"Oligodendroglioma with Neurocytic Differentiation Versus Atypical Extra-ventricular Neurocytoma: A Case Report of Unusual Pathological Findings of a Spinal Cord Tumor"*. Journal of Neuro-Oncology 82(2):199-205 Oct 13, 2006. DOI :10.1007/s11060-006-9268-0
- 24. Liao JJ, Nasr N, Gagnoon Gj Henderson FC. Radiation treatment of spinal tumors using CyberKnife radiosurgery. J Clin Onc 24(18Suppl): 1545) DOI:10.1200/jco.2006.24.18 suppl.1545
- 25. Gagnon, G.J., Henderson, F.C., Gehan, E.A., Sanford, D., Collins, B.T., Moulds, J.C., Dritschilo, A. "CyberKnife Radiosurgery for Breast Cancer Spine Metastases: A Matched-Pair Analysis." Cancer 2007 Oct 15; 110(8):1796-1802
- 26. Gagnon GJ, Nasr NM, Liao JJ, Molzahn I, Marsh D, McRae D, Henderson FC Sr. *Treatment* of spinal tumors using CyberKnife fractionated stereotactic radiosurgery: pain and quality-of-life assessment after treatment in 200 patients. Neurosurgery. 2009 Feb;64(2):297-306; discussion 306-7.
- Henderson, F.C., McCool, K., Seigle, J., Jean, W., Gagnon, G. "Treatment of Chordomas with CyberKnife: Georgetown University Experience and Treatment Recommendations". NSGY 64(2) A1-A11, 2009
- 28. GJ Gagnon, Henderson FC, Liau J, Balfour E, Collins BT, Harter KW. Radiation retreatment of the spine using CyberKnife radiosurgery. Int J RadOnc Biol Phys 63: s439 2005
- 29. Liao JJ, Nasr NM, Gagnon GJ, Henderson FC, Colliuns BT, McRae D. *Radiation treatment* of spinal tumors using CyberKnife radiosurgery. Journal of Clinical Oncology 24(18 suppl)1545-1545, 2006

- 30. Touny, L., Henderson, F.C., Djakiew, D. "Biochanin A Reduces Drug-Induced p75NTR Expression and Enhances Cell Survival: A New In Vitro Assay for Screening Inhibitors of p75NTR Expression", Rejuvenation Research(13.5): 527-537, 2010
- Gagnon GJ, Henderson FC, Gehan EA, Sanford D, Collins BT, Moulds JC. *CyberKnife* Radiosurgery for breast cancer metastases: a match pair analysis. Cancer 110 (8) 1796-1802.
- 32. Henderson FC, Wilson WA, Berry J, Vaccaro A, Benzel E: "Deformative stress associated with an Abnormal Clivo-axial angle: a finite element analysis: Surgical Neurology International, July 2010
- 33. Touny LH, Henderson FC, Djakiew D. *Biochanin A Reduces Drug-Induced p75NTR Expression and Enhances Cell Survival: A New In Vitro Assay for Screening Inhibitors of p75NTR Expression.* 2010 Rejuv Research 13(5):527-37. DOI:10.1089/rej.2009.1006
- 34. Heron, D.E., Stone, B., Burton, S., Gerszten, P.C., Dong, X., Gagnon, G.J., Quinn, A., Henderson, F.C. "Single Versus Multi-session CyberKnife® Radiosurgery for Spine Metastases—Surgical Neurology International, 2012
- 35. Chadi Tannoury, Jeffrey Rihn, William Wilson IV, Fraser Henderson Sr., Alexander Vaccaro. *Clinical and Finite Element Analysis of Acute Whiplash*. The Open Spine Journal, Vol.3, 27-37, 2011
- 36. Dwight E.Heron, Malolan S.Rajagopalan, Brandon Stone, Steven Burton, Peter C.Gerszten, Xinxin Dong, Gregory J.Gagnon, Annette Quinn, Fraser Henderson..Single-session and multisession CyberKnife radiosurgery for spine metastases - University of Pittsburgh and Georgetown University experience . Journal of Neurosurgery: Spine 17: 11-18, 2012
- 37. Henderson FC, Austin C, Benzel E, Bolognese P, Ellenbogen R, Ireton C, Klinge P, Koby M, Long D, Patel S., Singman E, Voermans NC. *Neurological and Spinal Manifestations of EDS-Hypermobility and Classic Types*. Submitted to American Journal of Medical Genetics, 2016.
- 38. Henderson, F. C. Sr., *Cranio-cervical Instability in Patients with Hypermobility Connective Disorders*. Journal of Spine, 2016. 05(02). doi:10.4172/2165-7939.1000299
- 39. Henderson FC, Sr., Henderson FC, Jr. *Diagnosis of Atlantoaxial Instability Requires Clinical Suspicion to Drive the Radiological Investigation*. Journal of Spine, Volume 6, Issue 2. Published April 2017.
- 40. Henderson, F. C. Sr., Henderson, F. C. Jr., Wilson, W. A., Mark, A. S., & Koby, M. (2017). *Utility of the Clivo-axial angle in assessing brainstem deformity: pilot study and literature review.* Neurosurgical Review. doi:10.1007/s10143-017-0830-3

- Henderson, F. C., Austin, C., Benzel, E., Bolognese, P., Ellenbogen, R., Francomano, C., Voermans, N. C. *Neurological and spinal Manifestations of the Ehlers-Danlos syndromes*. American Journal of Medical Genetics Part C: Seminars in Medical Genetics, 2017. 175(1), 195-211. doi:10.1002/ajmg.c.31549
- 42. Henderson, F. C. Sr., Francomano C., Koby, M., Tuchman K., Adcock J. Cervical Medullary Syndrome secondary to Craniocervical Instability and Ventral Brainstem Compression in Hereditary Hypermobility Connective Tissue Disorders: 2 and 5 year follow up after Cervical Reduction, Fusion and Stabilization. Neurosurgical Review, December 2018
- 43. Zachary S. Hubbard, MD, MPH, Fraser Henderson Jr., MD, Rocco A. Armonda, MD, Alejandro M. Spiotta, MD, Robert Rosenbaum, MD, and Fraser Henderson Sr., MD "*The shipboard Beirut terrorist bombing experience: a historical account and recommendations for preparedness in events of mass neurological injuries*" Neurosurgical Focus Volume 45 • December 2018)
- 44. Henderson F, Rosenbaum R, Narayanan M, et al. (N/A) Optimizing Alignment Parameters during Craniocervical Stabilization and Fusion: A Technical Note. Cureus (): e. doi:10.7759/Cureus
- 45. Henderson F, Rosenbaum R, Narayanan M, et al. *The Neurosurgical Intraoperative Checklist* for Surgery of the Craniocervical Junction and Spine. Cureus, (April 08, 2020) 12(4): e7588. doi:10.7759/cureus.7588
- 46. Grahame R, Malik I, Hakim A, Koby M, Henderson FC Sr. Comment on "Quantitative measures of tissue mechanics to detect hypermobile Ehlers-Danlos syndrome and hypermobility syndrome disorders: a systematic review", Journal of Clinical Rheumatology ( ):.1,2 DOI 10.1007/s10067-020-05158-5
- 47. Henderson FC, Francomano C, Rowe p. 2020 . "Atlantoaxial dislocation due to odontoideum in patients with Down's syndrome: literature review and case reports"" Childs Nervous System. (DOI: 10.1007/s00381-020-04886-y)
- 48. Henderson, F. C.Sr., Rosenbaum, R., Narayanan, M., Koby, M., Tuchman, K., Rowe, P. C., Francomano, CA. (2021). *Atlanto-axial rotary instability (Fielding type 1): characteristic clinical and radiological findings, and treatment outcomes following alignment, fusion, and stabilization. Neurosurgical Review*, 44(3), 1553-1568. <u>https://doi.org/10.1007/s10143-020-01345-9</u>
- 49. Henderson FC Sr., Rowe, P., <u>Narayanan</u> M., <u>Rosenbaum</u> .R , <u>Koby</u> M., <u>Tuchmann K.</u>, <u>Francomano</u> CA, 2020. *Refractory syncope and presyncope associated with atlantoaxial instability: preliminary evidence of improvement following surgical stabilization*. World Neurosurg 2021 May;149:e854-e865. doi: 10.1016/j.wneu.2021.01.084. Epub 2021 Feb 1.

- 50. Henderson FC Jr, HendersonFC Sr, Hubbard Z, Semenoff D, Spiotta AM, Patel SJ. 2022, *Phanor Perot Jr: South Carolina's father of Neurosurgery*. J Neurosurg 137: 1254-1261
- 51. Zingman A, Tuchman K, Henderson F Sr, Francomano CA. Patient-Reported Outcomes Following Sectioning of the Filum Terminale for Treatment of Tethered Cord Syndrome Associated With Ehlers-Danlos Syndrome. Cureus. 2022 May 2;14(5):e24679. doi: 10.7759/cureus.24679. PMID: 35663696; PMCID: PMC9160501.
- Schubart JR, Zare A, Fernandez-de-Castro RM, Figueroa HR, Sarel I, Tuchman K, Esposito K, Henderson FC, von Schwarz E. Safety and outcomes analysis: transcatheter implantation of autologous angiogenic cell precursors for the treatment of cardiomyopathy. Stem Cell Res Ther. 2023 Oct 26;14(1):308. doi: 10.1186/s13287-023-03539-6. PMID: 37880753; PMCID: PMC10601268.
- 53. Henderson FC Sr, Schubart JR, Narayanan MV, Tuchman K, Mills SE, Poppe DJ, Koby MB, Rowe PC, Francomano CA. *Craniocervical instability in patients with Ehlers-Danlos syndromes: outcomes analysis following occipito-cervical fusion*. Neurosurg Rev. 2024 Jan 2;47(1):27. doi: 10.1007/s10143-023-02249-0. PMID: 38163828; PMCID: PMC10758368.
- 54. Henderson FC, Sarel I, Tuchman K, Lewis S, Hsiang Y. Angiogenic Precursor Cell Treatment of Critical Limb Ischemia Decreases Ulcer Size, Amputation and Death Rate: Re-Examination of phase II ACP NO-CLI Trial Data. J Biomed Res Environ Sci. 2024 Feb 02; 5(2): 092-0105. doi: 10.37871/jbres1876, Article ID: JBRES1876, Available at: https://www.jelsciences.com/articles/ jbres1876.pdf
- 55. Gensemer C, Beck T, Guo L, Petrucci T, Morningstar J, Kornblau I, Byerly K, Biggs R, Weintraub A, Moore K, Koren N, Daylor V, Hastings C, Oberlies E, Zientara ER, Devey E, Dooley S, Stayer K, Fenner R, Singleton K, Luzbetak S, Bear D, Byrd R, Weninger J, Bistran E, Beeson G, Kerns J, Griggs M, Griggs C, Osterhaus M, Fleck E, Schnaudigel J, Butler S, Severance S, Kendall W, Delaney JR, Judge DP, Chen P, Yao H, Guz J, Awgulewitsch A, Kautz SA, Mukherjee R, Price R, Henderson F Sr, Shapiro S, Francomano CA, Kovacic JC, Lavallee M, Patel S, Berrandou TE, Slaugenhaupt SA, Milan D, Kontorovich AR, Bouatia-Naji N, Norris RA. *Variants in the Kallikrein Gene Family and Hypermobile Ehlers-Danlos Syndrome*. Res Sq [Preprint]. 2024 Jun 10:rs.3.rs-4547888/v1. PMID: 38947032; PMCID: PMC11213194.
- 56. Sharareh Tafakori, Oluwakorede Akele, Jaya Thiyagarajan, Kelly Tuchman, Fraser C. Henderson Sr. New onset of ataxic dysarthria with CSF overdrainage syndrome: A case report. Advanced Neurology 4162. https://doi.org/10.36922/an.4162

#### LETTERS

- 1. Henderson FC, Geddes JF, Crockard HA . Cervical Neuropathology in Rheumatoid Arthritis-Reply. Ann Rheum Did 53 (4) 284-285.
- 2. Henderson FC, Geddes JF, Crockard HA, Stevens JW. Neuraxial pathology in rheumatoid arthritis. Arth Rheum 36(5) R18
- 3. Henderson FC. Tarlov cysts- Journal of Neurosurgery. 97(2) 271-272, 2002
- 4. Henderson FC. Fractions, stages, radiosurgery and radiotherapy. Journal of Neurosurgery 102(3) 586-588 Apr 2005
- Henderson FC, Response to: Spinal Cord Herniation. Marshman L. Journal of Neurosurgery
   DOI link: https://doi.org/10.3171/spi.2005.3.6.0508 Online Publication Date: Dec 2005
- Henderson FC, Francomano CE, Rowe P. Atlantoaxial dislocation due to os odontoideum in opatients with Downs Syndrome: literature review and case reports. Child's Nervous System 37(1):1-3. DOI: 10.1007/s00381-020-04886-yLetter to the editor

### **BOOK CHAPTERS**

- 1. Henderson, F.C. "*Treatment of Soft Cervical Disc Herniation*." Controversies in Neurosurgery, Al-Mefty, O.; Origitano, T.C.; Harkey, H.L., (eds.): Thieme Medical Publishers, Inc., 1996; pp 226-239.
- 2. Feigenbaum, F., Henderson, F.C. "*Cervical Graft Options*." Textbook of Neurological Surgery, Batjer, H.H.; Loftus, C.M., (eds.): Lippincott-Raven Publishers, 1998.
- 3. Sekula, Jr., R.F.; Sandhu, F.A., Oliverio, P.J.; Henderson, F.C., "*Intramedullary Tumors of the Cord*." Seminars in Spine Surgery, Wiesel, S.W.; Lauerman, W.C., (eds.): W.B. Saunders Company, 2000.

- 4. Coumans, J.C.E., Marchek, C.P., Henderson, F.C. "*TPS Devices for Treatment of Vertebral Tumors and Pathological Compression Fractures.*" An, Y.H., (ed.):Internal Fixation in Osteoporosis, Thieme Medical Publishers, Inc., New York.
- 5. Sharma, M., Henderson, F.C. "Vascular Malformation of the Spine and Spinal Cord" (eds.): Lippincott, New York, 2003.
- Feigenbaum, F., Henderson, F.C. "Expansile Laminoplasty" Seminars in Spine Surgery, Wiesel, S.W.; Sherping, S., (eds.): W.B. Saunders Company, Philadelphia, Pennsylvania, 2003.
- Feigenbaum, F., Henderson, F.C A decade of experience with expansile laminoplasty: lessons learned. Seminars in Spine Surgery (16) 56-60. Wiesel SW (ed) W.B. Saunders Company, Philadelphia, Pennsylvania, 2004.
- Henderson, F.C., Benzel, E.C., Kim, D.H., Vacarro, A.R. "Pathophysiology of Cervical Myelopathy: Biomechanical Concepts". Spine Surgery, 1st Edition, Benzel, E. (ed.): Elsevier, Philadelphia, Pennsylvania, pp 160-168, 2003
- 9. Voyadzis, J-M., Henderson, F.C., "*Tarlov Cysts*." Spine Surgery, 1st Edition, Benzel, E. (ed.): Elsevier, Philadelphia, Pennsylvania, pp 1124-113, 2003.
- Couman, J.C.E., Marchek, C.P., Henderson, F.C. "TPS Devices for Treatment of Vertebral Tumors and Pathological Compression Fractures." An, Y.H., (ed.): Internal Fixation in Osteoporosis, Thieme Medical Publishers, Inc., New York 2003.
- Kim, D.H., Vaccaro, A.R., Henderson, F.C., Benzel, E.C. "Molecular Biology of Cervical Myelopathy and Spinal Cord Injury: Role of Oligodendrocyte Apoptosis" The Spine Journal, Volume 3, Issue 6: 510-519, November-December 2003.
- 12. Henderson, F.C. "Stretch Related Injury of the Spinal Cord" Seminars in Spine Surgery, Henderson, F.C., (ed.): W.B. Saunders Company, December 2004
- Henderson, F.C., Benzel, E.C., Kim, D.H., Vaccaro, A.R. "Pathophysiology of Cervical Myelopathy: Biomechanical Concepts" Spine Surgery, 1st Edition, Benzel, E., (Ed): Elsevier, Philadelphia, Pennsylvania, pp 160-168, 2004.
- 14. Voyadzis, J-M., Henderson, F.C., "Deformity Correction, Fusion and Stabilization of Cervical and Upper Thoracic Spine with the Telescopic Plate Spacer (TPS-C)" Kim, D.H.; Vaccaro, A.R.; Fessler, R.G., (eds.): Surgical Techniques in Spinal Instrumentation, Thieme, New York, New York, 2004.
- Kim, D.H., Vaccaro, A.R., Henderson, F.C., Benzel, E.C. "Neural Injury at the Molecular Level" Spine Surgery, 1st Edition, Benzel, E., (ed): Elsevier, Philadelphia, Pennsylvania, pp100-109, 2004.

- 16. Gagnon, G.J., Henderson, F.C., McCrae, D. "*The Rationale for Staged Radiosurgery*" in "CyberKnife Radiosurgery: A Practical Guide." Heilbrun, P. (Pd), April 2005.
- 17. Sharma, M., Henderson, F.C. "Whiplash Syndrome, An Overview." Seminars in Spine Surgery, Henderson, F.C., (ed.): W.B. Saunders Company, 2005.
- 18. Henderson, F.C., Gagnon, G.J., McCrae, D. "*CyberKnife Radiosurgery for Spinal Tumors with Emphasis on Tumor Biology and Treatment Technique*" Pioneering Techniques with Robotic Radiosurgery, Volume 1, Moulds, R.F., (ed): CyberKnife Society 2005.
- Gagnon, G.J., Henderson, F.C., McCrae, D. "Radiosurgery in Previously Irradiated Spines" Pioneering Techniques with Robotic Radiosurgery, Volume 1, Moulds, R.F., (ed): CyberKnife Society 2005.
- Kalmar, A., McCrae, D., Henderson, F.C. "Anesthesia Technique in Stereotactic Radiosurgery of the Spine with CyberKnife" in "CyberKnife Radiosurgery: A Practical Guide." Heilbrun, P. (Pd), August 2005.
- Henderson, F.C., Gagnon, G.J., McRae, D.A. "CyberKnife Radiosurgery for Spinal Tumors with Emphasis on Tumor Biology and Treatment Technique." Chapter in Pioneering Techniques in Robotic Radiosurgery Volume 1. Editor-in-Chief: R.F. Mould. CyberKnife Society Press pp 147-160, 2005.
- 22. Gagnon, G.J., Henderson, F.C., McRae, D.A. "*CyberKnife Radiosurgery of the Spine*". In CyberKnife Radiosurgery, a Practical Guide. 2005.
- 23. Henderson FC, Benzel, Vaccaro AR. "Stretch Myelopathy Syndromes" in Seminars in Spine Surgery, Wiesel, S.W., Boden, S.D., Henderson, F.C., Kalhorn, C.G.(eds) W.B. Saunders Company, Volume 17, NO 1, March 2005.
- 24. Feigenbaum F, Henderson FC. Surgical management of Meningeal Cysts, Including Perineural (Tarlov) Cysts and Meningeal Diverticula. Seminars in Spine Surgery 178(3):154-160 DOI:10.1053/JEMSS.2006.06.004
- 25. Moquin R, Sandhu FA, Henderson FC, *Cystic Neoplasms of the Spinal Cord, in Seminars of Spine Surgery,* W.B. Saunders Company, (1) 17:2-7, 2006.
- Gagnon, G.J., Henderson, F.C. "CyberKnife Stereotactic Radiosurgery: Rationale for Staged Treatment". Chapter in CyberKnife Radiosurgery Practical Guide 2. Editor Peter Heilbrun, M.D. The CyberKnife Society pp 1-8, 2006.
- 27. Gagnon, G.J., McRae, D., Henderson, F.C. "CyberKnife Radiosurgery of the Spine: The First Two Years' Experience at Georgetown University Hospital." Chapter in CyberKnife

Radiosurgery Practical Guide 2. Editor Peter Heilbrun, M.D. The CyberKnife Society. pp 69-86. 2006

- 28. Gagnon G, Henderson FC, Gehan E, Sanford, D, Collins BT, Moulds JC, Dritschilo A. *CyberKnife radiosurgery for breast cancer spine metastases: a matched-pair analysis.* Cancer 110(8):1796-1802,2007
- 29. Gagnon, G., Henderson, F.C.: "Clinical Outcomes of Pain and Quality of Life after CyberKnife Radiosurgery." In Spine Radiosurgery, Chapter 10, P. Gerszten, S. Ryu EDS, 2008.
- Henderson, F.C., Nasr, N., Gagnon, G.: "Stereotactic, Robotic, Radiosurgery of Tumors of the Spine", in "Textbook of Stereotactic and Functional Neurosurgery", Lozano, Gildenberg, Tasker Eds, Springer –Verlag, Heidelberg, Germany, 2008
- Henderson FC, Jean W, Nasr N, Gagnon G. *CyberKnife : Clinical aspects*. In Textbook of stereotactic and Functional Neurosurgery, Springer-Verlag Berlin Heidelberg, 2009 pp 1111-1129, 2011.book e-ISBN :978-3-540-69960-6
- 32. Henderson,FC Sr., McCool, JK, Seigle,J, Gagnon GJ, : *Treatment of Chordomas by Stereotactic Radiosurgery with Linear Accelerator: Comparison with other modes of Radiosurgery*. Functional Stereotactic Radiosurgery, 2010
- 33. Henderson, F.C., Wilson, IV, W., Benzel, E.C., Kim, D.H., Vacarro, A.R. "*Pathophysiology of Cervical Myelopathy: Biomechanical Concepts*". Spine Surgery, PP160-168, 2nd Edition, Benzel, E. (ed.): Elsevier, Philadelphia, Pennsylvania, 2011
- 34. Feigenbaum F., Henderson, F.C., "*Tarlov Cysts.*" Spine Surgery, 2nd Edition, Benzel, E. (ed.): Elsevier, Philadelphia, Pennsylvania, , 2011.
- 35. Kim, D.H., Vaccaro, A.R., Henderson, F.C., Benzel, E.C. "Neural Injury at the Molecular Level" Spine Surgery, 2<sup>nd</sup> Edition, Benzel, E., (ed): Elsevier, Philadelphia, Pennsylvania, pp100-109, 2011.
- 36. Henderson, F.C. Craniocervical Flexion Deformity in Hypermobility Syndrome: Diagnosis, treatment and Two Year Follow up in 20 Consecutive Patients with EDS, in "Basilar Impression and Craniocervical Instability", CSF Colloquium Proceedings, October 19th, 2013.
- 37. Treatment of Chordomas by Stereotactic Radiosurgery with a Linear Accelerator: Comparison with Other Modes. In Tumors of the Central Nervous System.Volume 12, M.A.Hayat ed (pp359-368). DOI:101007/978-94-007-7217-5
- 38. Fraser C. Henderson Sr, Edward C. Benzel, Fraser C. Henderson Jr. *Pathophysiology of Cervical Myelopathy: Biomechanics and Deformative Stress*. Chapter 10 . In: *Spine Surgery:*

*techniques, complication avoidance, and management.* Vol 2. 4th ed. Elsevier Churchill Livingstone; 2015.

- Frank Feigenbaum, Fraser C. Henderson Sr, Fraser C. Henderson Jr. Tarlov Cysts :Management and Pathophysiology. In: Spine Surgery: techniques, complication avoidance, and management. Vol 2. 4th ed. Elsevier Churchill Livingstone; 2015. Chapter 115
- 40. Henderson FC. *Craniocervical Flexion Deformity in Hypermobility Syndrome*, in Basilar Impression and Craniocervical Instability, Chapter 11, Batzdorf, U, Benzel EC, Henderson FC (*eds) Lulu*, *NY*,*NY*, 2014
- 41. Henderson FC, Brockmeyer D, Mayer C. Consensus Statement Cervical Medullary Syndrome and Metrics of Craniocervical Metrics Instability, in Proceedings of CSF colloquium "Comorbidities that complicate the treatment and outcomes of Chiari malformation". In: Batzdorf U, Henderson FC, Rigamonti D. (eds) Chiari Syringomyelia Foundation, Inc., Lulu, 2014.
- 42. Henderson FC, *Dysautonomia A co-morbidity or consequence of craniocervical instability and ventral brainstorm compression?* Batzdorf, U, Henderson FC eds CSF Colloquium Chiari & Syringomyelia Foundation, Inc. Chapter 5, Page 37, 2015
- 43. Henderson FC Sr, Feigenbaum F, Long D. *Tarlov Cysts: Management and Pathophysiology.*, Spine Surgery: techniques, complication avoidance, and management. Chapter 20, Vol 1. 5th ed. Elsevier Churchill Livingstone; 2020.
- 44. Henderson .Fraser C. *Effects of Cranio-Cervical and Atlantoaxial Fusions on the Autonomic Nervous system*, in Advances and Challenges in Chiari Malformation, Syringomyelia and Related Disorders, Ulrich Batzdorf (ed) 2019, San Francisco, CA Lulu, 2020
- 45. Henderson FC, Francomano CA: *Apoplectic Headache*. Symptomatic Physicians Guide to treatment of Ehlers-Danlos syndromes, Francomano, Hakim, Henderson (eds), Elsevier, NY, NY, 2023
- 46. Petracek L, Rowe P, Henderson FC. *Neck Pain and Syncope*, in Symptomatic Physicians Guide to treatment of Ehlers-Danlos syndromes, Francomano, Hakim, Henderson (eds), Elsevier, NY, NY, 2023,
- 47. Henderson FC, *Cervicogenic headache due to subluxation of the upper cervical spine*, in Symptomatic Physicians Guide to treatment of Ehlers-Danlos syndromes, Francomano, Hakim, Henderson (eds), Elsevier, NY, NY, 2023
- 48. Henderson FC, Long D. *Back Pain- Adult spinal deformity* in Symptomatic Physicians Guide to treatment of Ehlers-Danlos syndromes, Francomano, Hakim, Henderson (eds), Elsevier, NY,NY, 2023

- 49. Henderson FC, Severe tinnitus, headaches, nausea due to Atlanto axial instability. in Symptomatic Physicians Guide to treatment of Ehlers-Danlos syndromes, Francomano, Hakim,,Henderson (eds), Elsevier, NY,NY, 2023
- 50. Rosenbaum R, Henderson FC. *Headache with Shaking Episodes and Brain Fog due to Craniocervical Instability*. in Symptomatic Physicians Guide to treatment of Ehlers-Danlos syndromes, Francomano, Hakim, Henderson (eds), Elsevier, NY,NY, 2023

# PROCEEDINGS

- 1. Moore JM, Mega JE, Marchek CP, Cuddy BG, Henderson FC, Gharpuray V. *A* comparison of the clinical behavior and the Histopathology of Plate Versus Cage-Plate Systems for Cervical Fusion: An In Vivo Study. Crit Rev Biomed Eng. 26 428-429, 1998
- Degen JW, Gagnon GJ, HendersonFC. Improved Pain Control and Stable Quality of Life after CyberKnife Stereotactic Radiosurgery of Spinal Tumors. Neurosurg 57(2) 424 Aug 2005
- 3. Wong K, Choi J, Wilson w, Berry J, Henderson F. Spinal cord stress injury assessment (SCOSIA): clinical applications of mechanical modeling of the spinal cord and brainstem 2009 Proc. SPIE. 7261, Medical Imaging 2009: Visualization, Image-Guided Procedures, and Modeling
- Cuddy BG, Mega JE, Moore JM, Marchek CP, Gharpuray V, Henderson FC. "Telescopic Anterior Plate Spacer (TAPS): In Vivo Caprine Model." Neurosurgery 43, no. 3 (September 1998): 721. http://dx.doi.org/10.1097/00006123-199809000-00385.
- 5. Schellinger D, Lin C, Fertik D, Davis BT, Lauerman WC, Henderson FC. *Proton MR* Spectroscopy of lumbar vertebrae in normal subjects with single voxel and 2D CSI Multi voxel technique. Radiology 209:394
- 6. Luksenberg H, Watson V, Henderson FC. *Non-surgical treatment of vertebral compression fractures in multiple myeloma by percutaneous vertebroplasty*. Blood 88 (10)2335.
- Wong KW, Choi J, Wilson W, Berry J, Henderson FC. Spinal Cord Stress Injury Assessment (SCOSIA): clinical applications in mechanical modeling of the spinal cord and brainstem. Proceedings of SPIE-The International Society for Optical Engineering. DOI:10.1117/12.813791. Feb, 2009
- 8. Murphy S, Vaghaiwalla TM, Woto-czek-Obadia M, Albright R, Mack D, Lawn S, Heneson FC, Jung M, Dakshanamurthy S, Brown M, Forsyth P, Brem, S *P75NTR as a*

molecular target for development of antiangiogenic radiosensitizers: effect of combining radioation with celecoxib and ibuprofen in human glioma cells. Proceedings of American Association Cancer Research. Jan 2009

- Murphy S, Banasiak M, Yee GT, Malafa M, Rojiani A, Hendeson FC, Djakiew D. Ibuprofen, an inhibitor of angiogenesis, enhances radiosensitivity and suppresses glioma invasion:Role of P75NTR and VEGF. Cancer Research, DOI:10.1158/1538-7445. AM10-5271.April, 2010
- 10. Murphy S, Vaghaiwalla TM, Woto-czek-Obadia M, Albright R, Mack D,Lawn S, Heneson FC, Jung M, Dakshanamurthy S, Brown M, Forsyth P, Brem, S. Novel P75(NTR) Targeted Copmpounds that inhibit Angiogenesis and invasion of Human Malignant Glioma Cells. Neuro-oncology.Vol 13 Nov, 2011

# BOOKS EDITED

- 1. Seminars in Spine Surgery, Henderson, F.C., (ed.): W.B. Saunders Company, Dec 2004
- 2. Seminars in Spine Surgery, Stretch Myelopathy Syndromes Volume 17, NO 1, March 2005.
- 3. Cystic Lesions of the Spine , Henderson FC, (Ed) Seminars in Spine 2004
- 4. "Basilar Impression and Craniocervical Instability", Ullrich Batzdorf, Edward C. Benzel, (Eds).,CSF Colloquium Proceedings, October 19th, 2013. Lulu
- 5. Biomechanics and Deformative Stress.: Ullrich Batzdorf, Fraser C. Henderson Sr, Edward C. Benzel, (Eds). 2014
- 6. Co-Morbidities of Chiari Malformation and Hypermobility Syndromes . U. Batzdorf, F.C Henderson Sr, D Rigamonte (eds). Lulu, 2015
- "Symptomatic" Physicians Guide to Treatment of Ehlers Danlos Syndrome.1<sup>ST</sup> Edition, FC Henderson, CE Francomano, A Hakim eds, Elsevier, NY,NY, 2023

# PATENTS

- Fusion Stabilization Chamber. Henderson et al: U.S. Patent # 5,405,391A; 1993 Japanese Patent # 3236938; Canadian Patent # 2,155,726 German Patent # 44 91 034; British Patent # 2,290,716; 1997
- 2. Radiosurgery Methods that Utilize Stereotactic Methods to Precisely Deliver High Dosage of Radiation Especially to the Spine. Henderson, et al:

U.S. Patent # 6,665,555

Date of Issue 12/16/2003

- The Wedge, disc fusion device. Henderson et al: U.S. Patent # 6,066,175 Date of Issue 5/23/2000
- Computer Simulation Model For Human Central Nervous System. Henderson et al: U.S. Patent # 6,980,922 B2 Date of Issue 12/27/2005
- Triple Screw, Apparatus for Craniospinal Fixation: Henderson FC US Patent # 8,043,342 Date of Issue 10/25/2011
- Trabecular Mesh Stabilization System for Mitigation of Biomechanical Neuraxial Stress. Henderson FC, Newman JW US Patent # 8,187,302 Date of issue 5/29/2012
- Craniospinal Fusion Method and Apparatus: Henderson FC US Patent # 8,083,743 Date of Issue 12/27/2011
- 9. Craniospinal Fusion Methodology. Henderson et al: Provisional US Patent Application # 8043342 Date of Issue 10/25/2011
- Posterior Element vertebral Attachment Device. Henderson FC, Newman JW: US Patent Application # 8403965 Date of Issue 01/29/2007
- Theory, method and Device for Determination of Abnormal Brainstem stress and subsequent neurological deficit. Henderson: U.S. patent application # 8858470 B2 Date of Issue 01/29/2007
- Mathematical Relationship of Strain, Neurological Dysfunction and Abnormal Behavior Resulting from Neurological Dysfunction of the Brainstem: Henderson FC, Newman JW: U.S. Patent # 8556939 Date of Issue 01/08/2008
- 15. Craniospinal Fusion Method and Apparatus: Henderson FC US Patent # 8,182,511 Date of Issue 5/29/2012

- 16. Craniospinal fusion method and apparatus. Henderson FC, Newman JW, Predick D. US Patent # 9,827,023 DOI :2017
- 17. Treatment of Type 1 Diabetes Mellitus (T1DM) by transplantation of Islet cells in an Immune Privileged Site: methodology for CNS transplantation of beta islet cells in proprietary nerve and angiogenic precursor cell rafts

# RESEARCH

# <u>Funded</u>:

<ol> <li>P75 Neurotrophin Recep Role/Time Commitment: Funding Agency: Contact: Center (TATRC)</li> </ol>	tor Proteomics PI, no salary charged to grant U.S. Army, W81XWH-07-1-0366 Ken Curley, Telemedicine and Advanced Technology Research Fort Deitrick, MD 21702
Performance Period:	1 May 2007 - 30 Apr 2008
Level of Funding:	\$926,000
Specific Aims:	Study p75 expression after stretch related spinal cord injury (SCI) based on archived tissue sections and cultured cells from injured rat spinal cords. Studies of high-energy shock wave (HESW) cavitation injury and
	up-regulation of $p75^{NTR}$ expression.
	Testing response of administering varying concentrations of aryl propionic acid analogs in treatment of central nervous system (CNS) injury and cancer cells
	Identification of potential lead compounds for regulation of p75 <sup>NTR</sup> expression.
2. SCOSIA (Spinal Cord St	tress Injury Assessment) System
Role/Time Commitment:	PI, no salary charged to grant
Funding Agency:	U.S. Army, W81XWH-07-1-0386
Contact:	A.J. Petrore
	United States Army Medical Acquisition Activity (USAMRAA) Fort Detrick, MD 21702-5014
Performance Period:	21 May 2007 - 20 June 2008 (Research Ends 20 May 2008)
Level of Funding:	\$200,000
Specific Aims:	Develop a digital interface for the Spinal Cord Stress Injury Assessment (SCOSIA) system and integrate with finite element analysis and clinical database.
	Develop improved graphical user interface and speed up computer model

Collect clinical image data, apply finite element analysis, and conduct a statistical study of chronic (non-kinetic) injuries.

3. Up-Regulation of the P75 Nerve Growth Factor Receptor in Response to Extracorporeal Perturbatory Influences with High Energy Shock Waves and Stereotactic Irradiation in an Ependymoma Cell Line

Role/Time Commitment:	PI, no salary charged to grant
Funding Agency:	Medispec CorporationContact:Ms.Skinner,301 944 1575
Performance Period:	2005-2007Level of Funding: \$175,000
Specific Aims:	The goal of this study is to demonstrate upregulation of expression
	of a membrane glycoprotein (p75) by application of focused beams
	of energy (shock waves). We believe that "stressing" cell
	membranes at certain frequencies may provoke reproducible
	changes in cell physiology.

4. CyberKnife Stereotactic Radiosurgery for use in Spinal Tumors

Role/Time Commitment:	PI, no salary charged to grant
Funding Agency:	Accuray Corporation
Contact:	Omar Dawood 408 789 4457
Performance Period:	2002-2007
Level of Funding:	\$80,000
Specific Aims:	To demonstrate improved survival, pain, and quality of life after
stereotactic irradiation	

5. Retrospective Matched Pair Analysis of Stereotactic versus Conventional External BEAM Irradiation for Treatment of Breast Cancer of the Spine.

Role:	Co P.I., No salary
Funding :	Accuray Corporation Contact :Omar Dawood 408 789 4457
Performance Period:	2006-7.
Goal:	Comparison of single fraction versus multi-fractionation in treatment of spinal tumors with the CyberKnife SRS.

6. A Phase I/II Study of VEGF inhibitors in combination with CyberKnife radiosurgery for Patients with Malignant Brain and Spine Lesions

Role/Time Commitment:	Co-PI, no salary charged to grant
Funding Agency:	Accuray Corporation/ Pfizer
Contact:	Omar Dawood 408 789 4457
Performance Period:	2008-09 Level of Funding: \$98,000
Specific Aims:	To demonstrate safety and efficacy of Axitinib with CyberKnife

 p75 Neurotrophin Receptor Proteomics: Assay for Development of a drug for Glioblastoma Multiforme

Role: P.I.:	No salary charged to grant.
Contact:	Ken Curley: curley@tatrc.org, USAMRMC
Proposal Number	06122005

Award Number	W81XWH-07-1-0366
Level of funding :	\$70,000.
Performance Period:	September 2008-2009
Specific Aims:	Development of assays to drug specificity for the ligand receptor

8. Retrospective Comparison of Single Versus Multi-Session Fractionation on the Outcomes of Spinal Radiosurgery for Metastatic Lesions. To retrospectively compare outcomes of Single fraction spinal radiosurgery with the outcomes of multi-session (fractionated) radiosurgery in metastatic spine tumors.

Role:	PI
Funding Agency :	Accuray; Inc.
Contact:	Katherine Striedinger M.D, PhD
	CNS/Spine Clinical Program Manager; mobile phone: (408)
	431-1052
	Accuray, Inc, 1315 Chesapeake Terrace, Sunnyvale, CA 94098
Performance Period:	Sept 2008-2009

9. P75 Neurotrophin Receptor is a rational drug target for malignant glioma: Development of a drug to block malignant invasiveness of GBM . Animal models to test the lead drug candidates. In conjunction with Peter Forsythe (P.I.), University of Calgary, Canada.

Role:	Co-investigator
Funding Agency:	Ivy Foundation.
Grant admin:	Shelagh Hooton (403)220 6063
Level of funding:	\$1,277,005:
Performance period:	October 2008-2011

10. Spinal Cord Injury and Regeneration in the Rat Model.

Role:	P.I.
Funding:	Medical University of South Carolina, 1988-9
Level of Funding:	\$2,000
Specific Aims:	Prospective Randomized study of 110 laminectomized rat's s/p
	spinal cord injury by the drop Allen Technique, followed
	neuro-behaviorally for 6 months.

11. Assessment of the efficacy of stabilization and fusion surgery in subjects with hypermobile Ehlers-Danlos syndrome and craniocervical instability Role : Co-PI Funding: The Bruhn Morris Family Foundation Level of Funding : \$50,000

Specific aims: to retrospectively assess and compare the outcomes of 50 subjects undergoing a craniocervical reduction, fusion, stabilization with 25 subjects with craniocervical instability who did not undergo surgery.

# Unfunded University IRB approved Research

- Telescopic Plate Spacer(TPS) Spinal System for use Patients with Metastatic Spine Disease Following Vertebrectomy/Corpectomy (99-217) Role: P.I. Performance period: 1999-2005 Specific Aim: To demonstrate the safety and efficacy of the use of the TPS in the Spine following corpectomy for cancer; to survey pain and quality of Life after cancer surgery.
- Tarlov Cyst Syndrome: Retrospective Study of Neurological Assessment, Pain and Quality of Life after Sacral Laminectomized and Resection of Tarlov Cysts, GUH . Role: P.I.
   Performance Period: 2000-2007
   Specific Aim: To assess preoperative Clinical Characteristics of Syndrome and outcomes after outcomes after surgical resection of Lesions
- 3. Lead Member of task group, Joint NIH /Chiari Syringomyelia Foundation Committee to establish Common data elements for Tethered cord syndrome.(Submitted to NIH/NINDS October 2021)
- 4. Diagnosis and treatment of Tethered Cord Syndrome in the Ehlers-Danlos Syndrome population.
  Role: Investigator
  Performance period: IRB submitted for evaluation 2021.
  Primary investigator AT NIH: John Heiss
  Specific aim: Multi-institutional assessment of clinical diagnostic criteria, and outcomes analysis of cord untethering procedure.
- The Chiari Surgical Success Scale (CSSS). Role: Investigator Performance period: IRB submitted for evaluation 2022. Primary investigator: Douglas Brockmeyer, M.D.

### **ORAL PRESENTATIONS**, ABSTRACTS and INVITED LECTURES

- 1. Henderson, F.C.; Gudeman, S.K.; Perot, P., "*CT Diagnosis of Subdural Effusions in Infants with H Flu Meningitis*" AANS/CNS Section of Pediatric Neurological Surgery, Pittsburgh, PA, USA, 1986.
- 2. Henderson, F.C.; Gudeman, S.K.; Perot, P., "*CT Diagnosis of Subdural Effusions in Infants with H Flu Meningitis*" AANS/CNS Section of Pediatric Neurological Surgery, Pittsburgh, PA, USA, 1986.
- 3. Sullivan, K.L.; Hong, C.C.; Henderson, F.C, "Post-Operative Care and Management Program for Rats with Spinal Cord Injuries" AALAS, 1988.

- 4. Hogan, K.; White, R.; Gudeman, S.K.; Henderson, F.C., "Serum and Cerebrospinal Fluid Concentrations of Cefotaxime and Desacetylcefotaime in Patients with CSF Shunt Infections" American Society for Clinical Pharmacology and Therapeutics, 1989.
- 5. Hogan, K.; White, R.; Gudeman, S.K.; Henderson, F.C., "Vancomycin Pharmacokinetic and Pharmacodynamic Parameters in Patients Cerebral Fluid Shunt Infections" American Society for Clinical Pharmacology and Therapeutics, 1989.
- 6. Rogers, M.; Henderson, F.C.; Crockard, H.A., "*Atlanto-Axial Rotary Dislocation-Open Reduction using the Extreme Lateral Approach*" CSRS, European Section, Athens, Greece, 1992.
- 7. Calder, I.F.; Henderson, F.C.; Crockard, H.A., "Airway Management in End Stage Rheumatoid Arthritis" CSRS, European Section, Athens, Greece, 1992.
- 8. Henderson, F.C.; Geddes, J.F.; Stevens, J.; Crockard, H.A., "*Histopathological Changes in the Cervical Cord and Brainstem in End-stage Rheumatoid Arthritis*" CNS, Washington, D.C., USA, 1992.
- 9. Howard, R.S.; Hirsch, N.P.; Henderson, F.C.; Crockard, H.A., "*Respiratory Abnormalities Due to Atlanto-Axial Dislocation*" Assoc. British Neurologists & Danish Neurological Society, Amsterdam, 1992.
- 10. Stevens, J.M.; Henderson, F.C.; Crockard, H.A., "Vertical Axial Subluxation in *Rheumatoid Arthritis*" British Neuro-Radiology Society, London, Great Britain, 1992.
- 11. Henderson, F.C.; Geddes, J.F.; Crockard, H.A., "*Neuraxial Neuropathology in Rheumatoid Arthritis*" AANS/CNS Spine Section, Tucson, Arizona, USA, 1993.
- 12. Henderson, F.C.; Geddes, J.F.; Crockard, H.A.; Stevens, J.W., "*Neuraxial Pathology in End Stage Rheumatoid Arthritis*" ACR, Washington, D.C., USA, 1993.
- 13. Viola, J.J.; Harter, W.K.; Henderson, F.C., "*After loading Interstitial Brachytherapy for Recurrent Metastatic and Primary Tumors of the Spine and Sacrum*" AANS/CNS Section on Spine, 1995.
- 14. Levy, L.M.; Henderson, F.C., "Evaluation of Different and Unusual Causes of Spinal Cord Tethering Using Cord Motion Evaluation with MRI" NASS, Washington, D.C., USA, 1995.
- 15. Levy, L.M.; Henderson, F.C., "MRI of Cervical Canal and Foramen Magnum Stenosis: Role of Cord Motion and CSF Flow Studies" NASS, Washington, D.C., USA, 1995.
- 16. Levy, L.M.; Henderson, F.C., "Acquired and Non-Myelodysplastic Spinal Cord Tethering: MRI Evaluation" AANR, 1996.

- 17. Levy, L.M.; Kattah, J.; Henderson, F.C., "*Paradoxical Brainstem and Cord Motion in Non-Communication Hydrocephalus*" AANR, Washington, D.C., USA, 1996.
- Bhatnagar, A.; Rehm, P.K.; Henderson, F.C.; Ellmer, T.E.; Davis, B.T.; Feigenbaum, F., "Bone SPECT in Evaluation of Patients with Spinal Fusion" Society Nuclear Medicine, Rockville, Maryland, USA, 1996.
- 19. Moquin, R.; Henderson, F.C., "*Endoscopy in Syringomyelia*" AANS, Denver, Colorado, USA, 1997.
- 20. Schellinger, D.; Lin, C.S.; Fertikh, D.; Davis, B.T.; Lauerman, W.C.; Henderson, F.C., "Multi-Voxel Proton Magnetic Resonance Spectroscopy of Lumbar Vertebrae in Normal Subjects: Anatomic, Age and Gender Variance" ASNR, 1998.
- 21. Schellinger D, Fertikh D, Lauerman W, Henderson FC: "Association of Lumbar Synovial Cysts with Facet Effusion", Symposium NeuroRadiologyogicum XVI, Phila. PA, May 15-17, 1998.
- 22. Henderson FC: "Stabilization of Cervical Spine Traumatic Fracture Subluxations". International College of Surgeons. Wash DC, May 2-4, 1996
- 23. McRae, D.; Dieterich S.; Lundsten, M.; Gagnon, G.; Henderson, F.C., "SRS with CyberKnife at Georgetown: An Exploration of the Possibilities" First Annual CyberKnife Society Meeting. Napa Valley, CA, November 13-15, 2003.
- 24. Sharma, M.; Henderson, F.C., "*A New Paradigm for Treatment of Chordomas*" Third Annual CyberKnife Users' Meeting and the First Annual CyberKnife Society Meeting, Napa Valley, CA, November 13-15, 2003.
- 25. *"Stereotactic Radiosurgical Management of Chordomas"* AANS meeting, California, San Francisco, October 2004.
- 26. "*Pain Control and Quality of Life Data*" Annual Meeting of the Congress of Neurological Surgeons, Boston, MA, October 8, 2005.
- Henderson, F.C.; Liao, J.J.; Nasr, N.; Collins, B.T.; McRae, D.; Harter, K.W.; Gagnon, G.J.; Molzahn, I., "Stereotactic Radiosurgery of Spinal Tumors Using CyberKnife: Three Year Follow-up of Pain and Quality of Life" Fifth Annual CyberKnife User's Meeting, La Costa Resort, Carlsbad, CA, January 25-28, 2006.
- 28. "*Quality of Life after Stereotactic Irradiation of Spinal Tumors*" 23rd Annual Meeting of the AANS/CNS, Phoenix, Arizona, March 7-10, 2007.
- 29. "Complications of Anterior Cervical Spine Surgery," AANS, Philadelphia, Pennsylvania, USA, 1988.

- 30. *"Rheumatoid Arthritis: Clinical Radiology and Pathology Indicators for Surgical Referral,"* Tri-Service Rheumatology Association, Washington, D.C., USA, 1992.
- 31. "Neurotransplantation in the Spinal Cord," CNS, Washington, D.C., USA, 1993.
- 32. *"Transoral Surgery: Indications, Technique, Pitfalls,"* 5th Annual Spine Workshop, Bethesda, Maryland, USA, 1993.
- 33. *"Transoral Removal of Ventral Neuraxial Tumors,"* Microsurgery of the Brain Technique Workshop, St. Louis, Missouri, USA, 1994.
- 34. "*Treatment of Basilar Invagination*," 6th Annual Hands-On Spine Workshop, Bethesda, Maryland, USA, 1995.
- Viola, J.J.; Henderson, F.C.; Harter, W.K., "High Dose Afterloading Brachytherapy in Treatment of Spinal Malignancy" AANS/CNS Spine Section, Orlando, Florida, USA, 1996.
- 36. Henderson, F.C.; Viola, J.J.; Harter, W.K., "*Afterloading Interstitial Brachytherapy for Recurrent Metastatic Tumors of the Spine*" NASS, Vancouver, British Columbia, Canada, 1996.
- 37. *"Treatment of Spinal Tumors,"* Visiting Professor Lecture, Medical University of South Carolina, Charleston, South Carolina, USA, 1996.
- 38. *"The Pathology/Physiology of Cervical Spondylotic Disease,"* AANS, Philadelphia, Pennsylvania, USA, 1997.
- 39. *"Surgical Management of Craniocervical Disease*," Visiting Professor Lecture, Medical University of South Carolina, Charleston, South Carolina, USA, 1997.
- 40. "Spondylosis of the Cervical Spine Pathophysiology and Clinical Correlates," AANS, Philadelphia, Pennsylvania, USA, 1998.
- 41. *"Histopathology, Anatomy and Surgical Treatment of Basilar Invagination,"* 7th International Hands-On Spine Workshop, Bethesda, Maryland, USA, 1998
- 42. *"Transoral Surgery*," Visiting Professor Lecture, Medical University of South Carolina, Charleston, South Carolina, USA, 1998.
- 43. "Surgical Treatment of Rheumatoid Arthritis in the Cervical Spine," AANS/CNS Joint Section Hands-On Spine, Palm Springs, California, USA, 1998.
- 44. Henderson, F.C.; Marchek, C.P.; Gharpuray, V.M., "A Comparison of the Clinical Behavior and the Histopathology of Plate Versus Cage-Plate Systems for Cervical Fusion" CNS, Semi Ah Moo, Washington, USA, 1998.

- 45. *"Complication Avoidance of Anterior Cervical Spine Surgery,"* AANS, New Orleans, Louisiana, USA, 1999.
- 46. "Pathophysiology of Cervical Spondylotic Myelopathy," AANS, New Orleans, Louisiana, USA, 1999.
- 47. "Primary Tumors of Spine," Annual Spine Conference, Whistler, British Columbia, Canada, 1999.
- 48. "Occipito-Cervical Stabilization in Rheumatoid Disease," AANS, Boston, Massachusetts, USA, 1999.
- 49. "*Experimental Models of Spinal Fusion*," Seminars on Spinal Disorders, Keystone, Colorado, USA, 1999.
- 50. Henderson, F.C.; Mega, J.E.; Moore, J.R.; Marchek, C.P.; Cuddy, B.G.; Gharpuray, V.M., "*Mechanical and Histological Comparison of Instrumented Cervical Corpectomies on Caprine Model*" CSRS-European Section, Strasbourg, France, July 1999.
- 51. Coumans, J.V.; Henderson, F.C., "Osteoplastic Laminectomy Following Intradural Cervical Spine Surgery" CSRS-European Section, Strasbourg, France, July 1999.
- 52. Voyadzis, J.M.; Henderson, F.C., "*Tarlov Cysts: 10 Case Series and Review of Literature*" CNS/AANS Joint Spine Conference, Palm Desert, California, USA, 2000.
- 53. "*Adjacent Segment Disease*," Annual Spine Workshop, Whistler, British Columbia, Canada, 2000.
- 54. *"Far-Lateral Transcondylar Approach to the Skull Base,"* International Spine Conference, Bethesda, Maryland, June 2001.
- 55. Henderson, F.C., "Anterior Approach to the Cervico-Thoracic Junction" International Hands -On Spine Course, Bethesda, Maryland, USA, 2002. (Oral Presentation)
- 56. Henderson, F.C., "*CyberKnife Stereotactic Radiation*" American College of Surgeons, San Francisco, California, USA, October 2002.
- 57. Henderson, F.C.; Rodgers J.; "*Early Experience with Stereotactic Radiosurgery at Georgetown University*" CyberKnife Society, Napa Valley, California, USA, November 2002.
- 58. Henderson, F.C., "CyberKnife: Prospective Evaluation of the First 30 Spinal Radiosurgeries at Georgetown University Hospital" Stereotactic Surgery Symposium, New York, New York, USA, December 2002.

- 59. Henderson, F.C. "*Radiosurgery for Treatment of Tumors of the Spine*" National Hospital for Neurology and Neurosurgery, London, Great Britain, January 2003.
- 60. Henderson, F.C.; Sharma, M., "Spinal Stereotactic Surgery of the Spine-Preliminary Experience with 33 Consecutive Patients" Lende Neurosurgery Conference, Snowbird, Utah, USA, January 2003.
- 61. Henderson, F.C.; Rodgers, J., "*Stereotactic Radiosurgery: A One Year Experience*" International Symposium of Radiosurgery, Washington, DC, USA, April 2003.
- 62. "Telescopic Plate Spacer: New Options for Spinal Replacement," N.I.H., Grand Rounds, May 23, 2003.
- 63. *"Stereotactic Radiosurgery of the Spine: Prospective Evaluation of a One Year Experience"* Bethesda, Maryland, USA, June 2003.
- 64. *"13th International Hands On Spine Conference: The Anterior Cervico-thoracic Approach for Spinal Metastatic Disease,"* Bethesda, Maryland, June 3, 2003.
- 65. "New Treatment Algorithms with Spinal Radiosurgery," Georgetown University Hospital, Washington DC, October 16, 2003.
- 66. "New Treatment Algorithms for Spinal Disease with Radiosurgery," Societa Italiano Neurochirurgia, Pulia, Italy, November 10, 2003.
- 67. "Prospective Experience with CyberKnife Radiosurgery at Georgetown University Hospital," Napa, California, November 13-14, 2003.
- 68. *"The Argument for Staged Radiosurgery,"* CyberKnife Society Meeting, Napa Valley, California, November 14-15, 2003.
- 69. *"Radiobiology and Outcomes for Stereotactic Radiosurgery of the Spine,"* CNS Denver, Colorado, November 18, 2003.
- 70. "New Treatment Strategies for Spinal Tumors with Stereotactic Radiosurgery," Taiwan Neurosurgery Society, Taipeh, December 6-8, 2003.
- 71. "Anterior Approaches to the Cervico thoracic Junction, Stabilization Options," Taiwan Neurosurgery Society, Taipeh, December 6-8, 2003.
- 72. *"Prospective Experience with CyberKnife Radiosurgery at Georgetown University Hospital"* Napa, California, November 13-14, 2003.

- 73. Henderson, F.C.; Gagnon, G., "*Rationale for Staged Treatment*" Third Annual CyberKnife Users' Meeting and the First Annual CyberKnife Society Meeting, Napa Valley, Napa Valley, CA, November 13-15, 2003.
- 74. *"Radiobiology and Outcomes for Stereotactic Radiosurgery of the Spine"* CNS Denver, Colorado, November 18, 2003.
- 75. "New Treatment Strategies for Spinal Tumors with Stereotactic Radiosurgery" Taiwan Neurosurgery Society, Taipeh, December 6-8, 2003.
- 76. *"Anterior Approaches to the Cervico-thoracic Junction, Stabilization Options"* Taiwan Neurosurgery Society, Taipeh, December 6-8, 2003.
- 77. CyberKnife Radiosurgery: "*New Treatment for Spinal Tumors with CyberKnife*" Lende Neurosurgical Conference, Snowbird, Utah, January 31- February 6, 2004.
- 78. *"The Gold Standard of Radiosurgery in Neurosciences: State-of-the-Art Technology and Integrated Patient Care."* Conference, Washington Hospital Center, Washington, DC, April 16-17, 2004.
- 79. "New Stratagems for Extracranial Radiosurgery" Dalcross Hospital, Sydney, Australia, June 14, 2004.
- 80. *"New Stratagems for Extracranial Radiosurgery"* Neurosurgery Multi-Disciplinary Conference, Sir Charles Gardner Hospital, Perth, Australia, June 25, 2004.
- 81. *"Vertebral Body Replacement"* Techniques for Spine Surgery Symposium, NY, New York, December 3, 2004.
- *"Reconstruction for Cervical Tumors"* Current Concepts and Techniques for Spine Surgery Symposium, Hyatt Regency Islandia Mission Bay, San Diego, CA, April1-2, 2005.
- 83. *"Image Guided Surgery and Radiosurgery of the Spine"* AANS Spine Symposium, Ernest N. Morial Convention Center, New Orleans, Louisiana, April 16-21, 2005.
- 84. Degen JW, Gagnon GJ, Voyadzis JM, McRae DA, Lundsten M, Henderson, FC. "Experience with CyberKnife Radiosurgery of Spinal Lesions at Georgetown University Hospital". Annual Meeting of the American Association of Neurological Surgeons, April 2005
- 85. "*Quality of Life After Spinal Radiosurgery*" Robotic Whole Body Stereotactic Radiosurgery Symposium, CyberKnife Society/Stanford University Medical Center, Washington, DC, May 13, 2005.

- 86. *"Pain Control and Quality of Life Data following Stereotactic Radiosurgery"* Annual Meeting of the Congress of Neurological Surgeons, Boston, MA, October 8, 2005.
- 87. *"Stereotactic Radiosurgery of the Spine, Radiobiology and Quality of Life Outcome"*. Italian National Association of Neurosurgeons. Venice, Oct 2005
- 88. "Anterior Treatment of Cervico-Thoracic Metastatic Disease". EBI Invited lecturer, New York, NY, Dec 7th, 2005.
- 89. "*New Strategies for Treatment of Benign and Malignant Spinal Tumors*", FC Henderson, Washington Hospital Center, Grand Rounds, January 2006.
- 90 "Radiation Re-Treatment of the Spine Using CyberKnife Stereotactic Radiosurgery". Liao JJ, Nasr NM, Gagnon G, Henderson FC, Balfour American Society for Therapeutic Radiology and Oncology 47th Annual Meeting. October 2005
- 91. "*Pain and Quality of Life after Stereotactic Irradiation*", CyberKnife Users' Meeting, La Costa Resort, Carlsbad, California, January 25-28, 2006.
- 92. "*New Strategies for Radiosurgery of Spinal Tumors*" Grand Rounds, Georgetown University Hospital, February 23, 2006.
- 93. "New Paradigms in Treatment of Benign and Malignant Spinal Tumors" St. Mary's County CME Conference Series 2006, California, Maryland, March 2006
- 94. "Pain and Quality of Life After Stereotactic Radiosurgery of Spinal Tumors", CyberKnife/ Stanford University Conference, Intercontinental Hotel, Chicago, Illinois, April 7-8, 2006.
- 95. "Stereotactic Radiosurgery of Spinal Tumors–Quality of Life and Efficacy" AANS 74th Annual Meeting, San Francisco, California, April 22-27, 2006.
- 96. Spinal Tumor Association, Tele Conference "Pain and Quality of Life Issues following Stereotactic Irradiation", May 10, 2006.
- 97. *"Radiology and Quality of Life Issues for Patients with Spinal Tumors"*, Biannual American Society for Stereotactic Radiosurgery, Boston, Mass , June 2006
- 98. *"Radiobiology of CyberKnife in Treatment of Spinal Tumors"*, New Technology Symposium, Sydney, Australia, June, 2006
- 99. "Basilar Invagination and Encephalo-Myelopathy", Grand Rounds, Georgetown University, Washington, DC, Sept 2006
- 100. "Treatment of Spinal and Head and Neck Cancers with CyberKnife", Radiosurgery Symposium, Brisbane , June 2006 , Queensland, Australia

- 101. "Focal Stretch- Related Encephalo-Myelopathy, Diagnosis, Treatment and Computational Analysis", Visiting Professor, Grand Rounds, UCLA, LA, California, Sept ,2006
- 102. "*CyberKnife Radiosurgery of Chordomas*", for, Sharma, M, Gagnon, GJ, Henderson FC. CyberKnife Users' Meeting (Spine Session), November 2003, Napa CA, 2003
- 103. "CyberKnife Radiosurgery in Previously Irradiated Spines", for Gagnon GJ, Degen J, McRae D, Henderson FC. Worldwide CyberKnife Users' Meeting (Spine Session) January 28, 2005, Ritz Carlton Hotel, Half Moon Bay, CA,2005
- 104. "*Robotic Stereotactic Irradiation of Spinal Chordomas and Chondrosarcoma*—*A Case for Dose Escalation*", Seigle JM, Gagnon GJ, Harter KW, Henderson FC Worldwide CyberKnife Users' Meeting (CNS Session), January 25, 2006, Carlsbad, CA. 2006
- 105. Visiting Professor, Grand Rounds, UCLA, LA, California, Sept 2006 "Stereotactic Radiosurgery of Central Nervous System, Head and Neck Tumors". Henderson FC
- 106. "Treatment of Metastatic Cancer through the Anterior Cervical, Thoracic and Lumbar Approaches". Invited Lecturer, EBI Annual Spine Workshop. N.Y,N.Y., Dec 5, 2006
- 107. Gagnon GJ, Henderson FC, Huaing J. "*Methods to Reduce Carcinogenic Risk from CyberKnife Radiosurgery*". Worldwide CyberKnife Users' Meeting, January 24-28, 2007, Palm Springs, CA.
- 108. Gagnon GJ, Collins BT, Henderson FC, McRae D. "Radiosurgical Metastasectomy in a Select Patient Population". Worldwide CyberKnife Users' Meeting (Extra-cranial Session), January 24-28, 2007, Palm Springs, CA
- 109. Nasr NM, Collins BT, Jean WC, Henderson FC, McRae DA, Gagnon GJ. "The Use of Fractionated Stereotactic Radiosurgery in the Treatment of Malignant Melanoma". Worldwide CyberKnife Users' Meeting. January 25, 2006, Carlsbad, CA.
- 110. *"Synergy of Vascular Endothelial Growth Factor Inhibitors with SRS"* CyberKnife Clinical Advisory Board Meeting, Half Moon Bay, CA, May 18-20, 2007.
- 111. FC Henderson, K Schmidt, Mott: "Finite Element Analysis in Predicting Deformity Stress as a Cause of Encephalo-Myelopathy and Neurobehavioral Changes in Children". IBMSPS, Washington DC, SEPT 8, 2007
- 112. "Stress Measurement in TBI with the Spinal Cord Stress Injury Analysis": F Henderson, J Berry Dept of Defense Product Line Review: Fort Dietrich, MD, Sept 2007
- 113. "Biomechanical Deformity of the Craniospinal Angle : Reduction of Deformity Results in Neurological Improvement of Neurological Deficit and Behavior": FC Henderson, S

Mott: The International Conference for Syringomyelia; Rugby, Great Britain, November 118th, 2007

- Gagnon GJ, McRae DA, Degen JW, Henderson FC. "CyberKnife Radiosurgery in Previously Irradiated Spines". Whole Body Radiosurgery Symposium, Washington, DC. 14 May 2005.
- 115. "Deformative Stress of the Brainstem Causes Neuro-Behavioral Change. Case Cohort Series: Correlation of Predicted Stress and Outcome in Children." F Henderson, S Mott AANS/CNS J Peds, Miami, FL, Nov 28, 2007
- 116. "CyberKnife Treatment of Chordomas and Chondrosarcomas at GU": Fraser Henderson, Kyle McCool, Juliet M. Seigle, Gregory Gagnon CyberKnife Society, Phoenix, Arizona, Jan 26,2008
- 117. "Reduction of Abnormal Biomechanical Stress in the Brainstem Improves Deficit and Neuro-Behavioral Disorders: Presentation of Case Cohort Series Correlating Clinical Outcome Metrics with Predicted Biomechanical Stresses." Neurosurgery in the Rockies, Beaver Creek, Colorado, Feb 22, 2008.
- 118. "Safety, Efficacy and Quality of Life after CyberKnife Stereotactic Robotic Irradiation of Spinal Tumors". Fraser C. Henderson Sr, Gregory Gagnon, Donald McRae, Inge Molzahn, Jay Liao, Nadim Nasr AANS/CNS Joint Section for Spine, Orlando, FLA, Mar 1, 2008
- 119. Daniel Djakiew, Fatima Khwaja and Fraser Henderson, "*Induction of the p75NTR Protein Inhibits Central Nervous System Tumor Cell Survival*," 7th International Brian Research Organization World Congress of Neuroscience, 12-17th July 2007, Melbourne, Australia.
- 120. Djakiew, F. Khwaja, F. Henderson, (2007), "*The Role of p75 Neurotrophin Receptor in Neurotrauma and Oncology*". Fourth Annual Congress of the International Brain Mapping & Intraoperative Surgical Planning Society (IBMISPS), Washington, DC.
- 121. Henderson, FC : "Quality of Life and Survival after Stereotactic Irradiation of Metastatic and Benign Disease in the Spine". AANS, 9/21/08, Orlando, FLA.
- 122. Murphy, S.F, Banasiak, M., Yee, G-T., Malafa, M., Thompson, J., Rojiani, A., Tofilon, P Henderson, F., Djakiew, D., Obadia, M. Brem, S, "*Modulation of p75NTR by Celecoxib and Ibuprofen in U251 Human Glioma Cells*". AACR, 2009.
- 123. Djakiew, Khwaja, F., Henderson, F. (2007), "*The Role of p75 Neurotrophin Receptor in Neurotrauma and Oncology*". Fourth Annual Congress of the International Brain Mapping & Intraoperative Surgical Planning Society (IBMISPS), Washington, DC.

- 124. Djakiew, D., Khwaja, F., Henderson, F., "*Induction of the p75NTR Protein Inhibits Central Nervous System Tumor Cell Survival*," 7th International Brian Research Organization World Congress of Neuroscience, 12-17th July 2007, Melbourne, Australia
- 125. Invited speaker for the European Society for Functional and Stereotactic Neurosurgery. Rimini, Italy, Oct 7th, 2008: Henderson FC: "*Treatment of Metastatic Disease*, *Chordomas and Benign Disease with CyberKnife Stereotactic Irradiation*"
- 126. "Treatment of Chordomas, Radiobiology and Quality of Life"; Henderson FC, AANS San Diego, CA,May3 2009
- 127. Henderson FC, McCool JK, Gagnon G: "Novel Treatment for Spinal Chordomas: Efficacy, Pain, Quality of Life". AANS/CNS Section on Spine and Peripheral Nerves, Phoenix Ariz., March 2009
- 128. "P75NTR Radiosensitizers: Effects Human -NTR as a Molecular Target for Development of Antiangiogenic Radiosensitizers: Effects of Combining Radiation with Celecoxib and Ibuprofen in Human Glioma Cells". Rojiani A, Wotoczek G, Murphy SF, Banasiak M, Yee GT, Malafa M, Thompson J, Rojiani A, Tofilon P, Henderson F, Djakiew D, Wotoczek, Obadia M, Brem S
- 129. Henderson FC : "*The Influence of Deformative Stress of the Brainstem and Spinal Cord on Neurological Behavior*" Neurobiology Grand Rounds, Virginia Technology Institute, Blacksburg ,VA, Oct 26, 2009
- 130. Henderson FC: "*Deformative stress in the Chiari population: Case Cohort Series*." The Chiari Syringomyelia Foundation Annual Meeting, AANS, Phila, PA 2010.
- 131. Henderson FC: "Single Versus Multi-session CyberKnife® Radiosurgery for Spine Metastases—The Georgetown & University of Pittsburgh Experience". AANS, Philadelphia, PA, 2010
- 132. Henderson FC: "*The influence of Deformative Stress in disorders of the craniocervical junction.*" Washington Clinical Pathology Society Meeting, May 2010. Washington D.C.
- 133. Henderson FC, Mathis M: "Deformative Stress : A Paradigm for Neurological Injury in Ehlers Danlos Syndrome." Ehlers Danlos Society Conference, Baltimore, MD, 2010
- 134. Henderson FC: Invited Guest Speaker March of Dimes Session : "*Neurosurgical Manifestationss of Ehlers Danlos Syndrome.*" American College Molecular Genetics Vancouver ,Canada March 2011
- 135. AANS/CNS Chiari Meeting: Co-morbidity of Autism and Chiari Malformation 2011
- 136. Henderson FC, Mathis M: "*Neurological Manifestation of EDS*" : Ehlers Danlos Syndrome National Conference, Baltimore, MD, 2011

- 137. Invited Speaker: "Comorbidities of Chiari malformation", Chiari Walk, Fredericksburg, VA, 2912
- 138. AANS/CNS Chiari Meeting: Co-morbidity of Autism and Chiari Malformation 2012
- 139. Henderson FC, Mathis M: "*Neurological Manifestations of EDS*" : Ehlers Danlos Syndrome National Conference, Baltimore, MD, 2013
- 140. Henderson FC: "Neurological evaluation and treatment of Craniocervical and Spinal Disorders in the EDS population." ILC Foundation, Toronto, Canada, 2013
- 141. Henderson FC: "*The diagnosis and treatment of Neurological disorders arising in the setting of Hereditary Hypermobility Syndromes.*" Washington Clinical Pathology Society, Chevy Chase, March 2014
- 142. Henderson FC: "New Developments in the Diagnosis of Headache in the Chiari Population." Chiari Fundraiser Walk. June 29th, 2014
- 143. Henderson FC: "Neurosurgical Management of Ehlers Danlos Syndrome", EDNS, Houston July 11th, 2014
- 144. Henderson FC: "Radiological Evaluation of Neurosurgical Pathology in the Chronic pain population", The Coalition against Pediatric Pain, Washington, DC, September 12th, 2014
- 145. Henderson FC: "The Consensus Report, and Radiological Metrics for evaluation of Craniocervical Instability. CSF Colloquium on Co-morbid Conditions Complicating the Outcome of Chiari Decompression." Boston, Mass, October 18th, 2014
- 146. Henderson FC: "Neurosurgical Manifestationss of Lax Ligament Syndromes", ILC Annual Conference, Toronto, Canada, November 7th, 2104
- 147. Henderson FC: *"Paraneoplastic Limbic Encephalopathy , PANDAS and Dystonia"*, CSF Greater Washington Chapter , Quarterly conference, Lanham, January 15th , 2015
- 148. Henderson FC: "*The relationship between Dysautonomia and Brainstem Deformity*", CSF Annual Meeting, Washington D.C., May 1 2015
- 149. Henderson FC: "Neurological Manifestationss of Ehlers Danlos Syndrome", The Hypermobility Conference, London University College, June 11th, 2015, London Great Britain.
- 150. Henderson FC: "Pathophysiology and Pitfalls of Treatment of Craniocervical Instability in the Hypermobility Syndromes." Complex Spine Conference, National Hospital for Neurology and Neurosurgery, Queen Square, London ,Great Britain, June 12th ,2015

- 151. Henderson FC: "Neurosurgical Management of Hereditary Hypermobility Connective Tissue Disorders" British Ehlers Danlos Syndrome, Annual Conference, Boreham Wood, Great Britain, June 13th, 2015
- 152. Henderson FC: "Neurosurgical Pitfalls in breaking Hypermobility Connective Tissue Disorders" Chiari Syringomyelia Foundation Conference, April 2016
- 153. Henderson FC: "*Neurosurgical Manifestations of Ehlers Danlos Syndrome*" Ehlers Danlos Syndrome Conference, New York, New York, May 1<sup>st</sup>, 2016
- 154. Henderson FC: "Neurosurgical and Spinal Manifestations of Ehlers Danlos Syndrome" Ehlers Danlos Syndrome Conference, Baltimore, Maryland, July 2016
- 155. Henderson FC: "*Neurosurgical Manifestations of Ehlers Danlos Syndrome*" Methodist Hospital, Houston, Texas September 30<sup>th</sup>, 2016
- 156. Henderson FC: "*Pitfalls of Craniocervical and Spine Surgeries and Management of EDS patients*" Canada. November 2016.
- 157. Henderson FC: "Neurosurgical Manifestations of Ehlers Danlos Syndrome" University of Wales, Cardiff, UK. January 2017
- 158. Henderson FC: "Spinal Manifestations of Hypermobility Tissue Disorders" Southern England Spine Society Tauton. January 2017
- 159. Henderson FC: "*Neurosurgical Manifestations of Ehlers Danlos Syndrome*" The Integration of Art, Science and Medicine at Brown University Providence, Rhode Island. June 2017
- 160. Henderson FC: "Surgical Manifestations of Hypermobility Tissue Disorders" XXIX ASAP Conference on Chiari I Malformation, Syringomyelia, and Related Disorders. New York. July 2017
- 161. Henderson FC: "Differentials Diagnosis of Headaches in Hypermobility Tissue Disorders" "The Ehlers Danlos Society – Global Learning Conference" Las Vegas, Nevada. September 2017
- 162. Henderson FC: "Cephalic Manifestations of Hypermobility Tissue Disorders" International School of Ehlers Danlos Murcia, Spain. October 2017
- 163. Henderson FC: *"Headaches and Connective Tissue Disorders"* The ILC Ehlers Danlos and Chronic Pain Learning Conference Toronto, Canada. November 2017

- 164. Henderson FC: "Neurological and Spinal Problems of Patients with EDS" Conferencia de la Asociación Nacional del Síndrome de Ehlers-Danlos e Hiperlaxitud (ANSEDH) – Madrid, Spain. April 6, 2019
- 165. Henderson FC: "Diagnostic of headache in EDS Population Requires Careful Consideration and Directive Studies" Conferencia de la Asociación Nacional del Síndrome de Ehlers-Danlos e Hiperlaxitud (ANSEDH) – Madrid, Spain. April 7, 2019
- 166. Henderson FC: "Five-year Follow Up after Cervical Spinal Fusion and Stability Patients with Hereditary Tissue Disorder" The CSF Conference – San Diego, California. April 2018
- 167. Henderson FC: "The Autonomic Nervous System Dysautonomia and its Relations to Cranial Cervical Instability"– Rockville, Maryland. April 19, 2019
- 168. Henderson FC: "Cranio-Vertebral Junction: Cranio-cervical Junction Hypermobility" Chiari, Syringomyelia and EDS – CSF Flow at Niagara Falls, Niagara Falls, NY June 26 - 28, 2019 University of Buffalo Medical School
- 169. Henderson FC: "Dysautonomia and Cranial Cervical Instability" EDS Society in Nashville, August 4th, 2019, Nashville, Tennessee
- 170. Henderson FC: "Neurosurgical and Spinal Manifestations of Ehlers Danlos Syndrome" EDS Society in Nashville, August 5th, 2019, Nashville, Tennessee
- 171. Consensus Meeting, Craniocervical instability in Ehlers –Danlos Syndromes , London the Royal College of Medicine , September 2019
- 172. Salutary effects of stabilization upon Autonomic nervous function in cases of craniocervical and atlantoaxial instability . CSF October 2019 San Francisco,
- 173. Henderson FC. Neurological manifestations of EDS. Echo Lecture Series, Ehlers Danlos Society. Nov 2019
- 174. Henderson FC. Complications of EDS. Echo Lecture Series, Ehlers Danlos Society. Jan 2020
- 175. Henderson FC. Less common causes of Headache. Medical School Lecture, Greater Caribbean medical School, Jan 2020.

176. Henderson FC. The Autonomic Nervous System in EDS . Echo Lecture Series, Ehlers Danlos Society. May 2020

177. Henderson FC. Atlanto-axial instability (Fielding Type1):Diagnosis, treatment, and outcomes. September 2020. Bobby Jones Chiari Syringomyelia Foundation Scientific meeting, September 2020.

- 178. Henderson FC, Heiss J, Gilmer H, Koby M, Gordon D. Common Data Elements for Tethered Cord Syndrome. Bobby Jones Chiari Syringomyelia Foundation Scientific meeting, September 18th, 2020.
- Henderson FC. Cranio-cervical instability in Hereditary Disorders of Connective Tissue :
   5 year follow up of 20 Consecutive Patients Undergoing Craniospinal Fusion. Echo series. Jan 30, 2021.
- 180. Henderson FC. Schubard, J. Henderson FC. Craniocervical fusion stabilization : Outcome's analysis of Diagnosis, treatment, and outcomes. September 2020. Bobby Jones Chiari Syringomyelia Foundation Scientific meeting, September 2020.
- Henderson FC. Atlanto-axial instability in the EDS population. Echo Lecture Series, Ehlers Danlos Society. October 1, 2020
- 182. Henderson FC. Atlanto-axial instability. Kiawah Spine/Neurosurgery. December 5-6, 2020
- Henderson FC. Complications of Ehlers Danlos Syndromes. ECHO series Ehlers Danlos Society. 2/11/21
- 184. Henderson FC. Indications for craniocervical fusion in hypermobility disorders. ECHO Summit Neurology series Nov 25, 2021
- Henderson FC. Diagnosis of craniocervical instability in EDS. Echo Summit series. Nov 26, 2021.
- 186 Henderson FC. Causes and Diagnosis of Headaches in EDS. Sept 30, 2021
- 187. Henderson FC, Schubart J: Craniocervical instability in hypermobile Ehlers-Danlos syndrome: a retrospective outcomes study of stabilization and fusion surgery. Bobby Jones CSF Colloquium, Aug 21, 2021.
  - 188.Salutary effects of stabilization upon autonomic nervous function in cases of atlantoaxial and craniocervical instability, Tenwek Hospital, Bomet, Kenya; August 30, 2022.
  - 189.Diagnosis of headache in the EDS population requires careful consideration and directed studies. Ehlers Danlos Socitey, ECHO Lecture Series, October 13<sup>th</sup>, 2022
  - 190.What we don't know about Ehlers Danlos Syndrome. Global Learning Conference, Scottsddale Arizona, August 3-6, 2022
  - 191. Cranioervical Instability, November 19th, 2022, Paris, France, EDS Learning Conference

- 192.Atlantoaxial rotatory subluxation in the Hereditary Disorders of Connective Tissue, University of Maryland Neurosurgery Grand Rounds, Jan 5<sup>th</sup>, 2023, Baltimore Maryland.
- 193.Atlantoaxial rotatory subluxation in the Hereditary Disorders of Connective Tissue, The Perot Society, March 4<sup>th</sup>, 2023, Charleston , S.C.
- 194.Atlantoaxial rotatory subluxation in the Hereditary Disorders of Connective Tissue, Mayo Clinic, June 6<sup>th</sup>, 2023, Jacksonville, Florida
- 195.. Ishmam Bhuiyan<sup>,</sup> Choi S, Misskey j, Sarel, I, Henderson, FC,Sr.,Wang Y, Tuchman k, Argent-Katwala M, Smeenk T, Hsiang Y. Report from a phase 2 prospective randomized placebo controlled trial of autologous stem cells to treat patients with no option critical limb ischemia. Western Vascular Society Annual Meeting, Kauai, HI, Sept. 9-12, 2023
- 196. Ishmam Bhuiyan<sup>,</sup> Choi S, Misskey j, Sarel, I, Henderson, FC,Sr.,Wang Y, Tuchman k, Argent-Katwala M, Smeenk T, Hsiang Y. Report from a phase 2 prospective randomized placebo controlled trial of autologous stem cells to treat patients with no option critical limb ischemia. Canadian Society for Vascular Surgery Annual Meeting, Quebec City, PQ, Sept 8-9, 2023.A
  - 197.Headaches! Etiologies that you may not have considered. Maryland Academy of Physicians Assistants, September 23 2023
  - 198.Headaches! Etiologies that you may not have considered. University of Maryland, Neuroscience Forum, 11/3/23, Largo, Maryland.
  - 199.Chronic craniocervical instability: diagnosis, radiological metrics, treatment and outcomes analysis. Bobby Jones Chiari Syringomyelia Foundation, Chicago, Illinois, May 3<sup>rd</sup> 2024.
  - 200.Chronic craniocervical instability: diagnosis, radiological metrics, treatment and outcomes analysis. American Syringomyelia Chiari Alliance Project, Duke University, July 18th 2024.

201..