PRAKASH SAMPATH, M.D., FAANS

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EDUCATION

EDUCATION							
GCE	Haileybury College		Herford, Herts, UK		1983		
BA	The John Hopkins Biomedical Engin		Baltimo	re, Maryland		1987	
MD College	Columbia Univers of Physicians and S		New Yo	rk, New York		1992	
POSTGRADUATE TRAINING							
The John Hopkins The John Hopkins		Intern, Department of Surge Assistant Resident Department of Neurosurgery	-	Baltimore, Maryla Baltimore, Maryla		1992-1993 1993-1995	
The John Hopkins Medical Center	Bayview	Chief Resident Department of Neurosurgery		Baltimore, Maryla	nd	1995	
The John Hopkins	Children's	Chief Resident		Baltimore, Maryla	nd	1996	
Hospital The John Hopkins Of Medicine	School	Department of Neurosurgery Hunterian Fellow Department of Neuroscience Neurosurgery and Immunolo	2,	Baltimore, Maryla	nd	1996-1998	
POSTGRADUAT	TE HONORS AND	<u>AWARDS</u>					
NIH National Res John E. Sherman I Carl Zeiss Educati Harvey Cushing C Guest Editor, Tum Neurosurgical Foo Dean's Teaching I Dean's Teaching I	outstanding Research fors of the Cerebello tus (September) Excellence Award, B Excellence Award, B and Report Top Doct	h Award pontine Angle rown Medical School rown Medical School			2001 2002	1997 1998 1997 1996 1998 1998 2012, 2015 2004, 2005, 2006, 2008, 2010, 2012, 2013,	
RI Brain & Spine	Tumor Foundation's	s Partner in Philanthropy Awar	d		2013	2014, 2015, 2016	
PROFESSIONA	L LICENSES AND	BOARD CERTIFICATION	I				
Rhode Island Med Connecticut Medi	l License (D51070, lical License (D101 cal License (03866) dical License (2053	26, Active) 5, Inactive)				1992 1999 1999 1999	
Diplomat, National Board of Medical Examiners Diplomat of the American Board of Neurological Surgery Fellow, AANS				1993 2005 2000			

ACADEMIC APPOINTMENTS

Associate Professor	Warren Alpert Medical School of Brown University	2017-present
Department of Neurosurgery Associate Professor	Boston University School of Medicine	2007- 2016
Department of Neurosurgery Associate Professor (Adjunct)	Warren Alpert Medical School of Brown University	2008 - 2016
Department of Neurosurgery Assistant Professor	Warren Alpert Medical School of Brown University	1999 – 2007
Department of Clinical Neurosciences Director, Neuro-oncology Clinical Instructor Department of Neurological Surgery	Rhode Island Hospital The John Hopkins School of Medicine Baltimore, Maryland	1999 – 2005 1998 – 1999
HOSPITAL APPOINTMENTS		
Chief, Division of Neurosurgery Staff Neurosurgeon Staff Neurosurgeon Staff Neurosurgeon Director, Neuro-oncology Staff Neurosurgeon Staff Neurosurgeon Staff Neurosurgeon Staff Neurosurgeon	Roger Williams Hospital Memorial Hospital St. Joseph's (Fatima) Miriam Hospital Rhode Island Hospital Rhode Island Hospital St. Anne's Hospital John Hopkins Hospital	2000 – Present 2000 – Present 1999 – Present 1999 – Present 1999 – 2005 1999 – Present 2013 - Present 1997 – 1999
OTHER APPOINTMENTS	Topanio Hospian	1337, 1333
Director President President President Director Co-Director	Roger Williams Medical Center Neuro-Oncology Lab RI Brain and Spine Tumor Foundation Rhode Island Neurosurgical Institute Rhode Island Neurosurgical Society Bethany Home Rehabilitation Center Rhode Island Hospital Neuro-Oncology Immunotherapy Lab	2005 - Present 2007 - Present 2005 - Present 2008 - Present 2010 - 2014 2015 - Present
HOSPITAL COMMITTEES	Tenode Island Trospital Treate Oneology Islandaronictupy Zuo	2013 1105011
Rhode Island Hospital:		
Chairman, Quality Assurance Commit Transplant and Organ Procurement Co Operating Room Committee Residency Committee (Neurosurgery)	1999 - 2005 2000 - 2004 2000 - 2003 2002 - 2005	
Roger Williams Hospital:		
Quality Assurance Committee Development Committee Operating Room Committee Credentialing Committee Division Director, Neurosurgery Chief of Surgery Search Committee Chief of Medicine Search Committee	Co-Chair)	2001 – Present 2002 – Present 2004 – Present 2005 – Present 2002 – Present 2012 - Present 2015 – Present
UNIVERSITY COMMITTEES		
Boston University Residency Program Academic Research Committee, Depart	2008 – Present 2002 – 2005	
MEMBERSHIP IN SOCIETIES		
AANS/CNS – Joint Section on Spine a AANS/CNS – Joint Section on Tumor American Association of Neurological American Medical Association (AMA American Society of Clinical Oncolog	1994 - Present 1994 - Present 1992 - Present 1989 - Present 1999 - 2007	

ASICON (Association of Spinal Surgeons in India)	2004 - Present
British Neurosurgery Research Group	1997 - 2005
Cervical Spine Research Society	1997 - Present
Congress of Neurosurgeons (CNS)	1993 - Present
Indian Skull-Base Society	2001 - 2005
John Hopkins Medical and Surgical Association	2000 - Present
New England Cancer Society	2000 - Present
New England Neurosurgical Society	2001 - Present
North American Skull Base Society	1996 - 1999
Research Society of Neurologic Surgeons	1997 - 1999
Rhode Island Neurosurgical Society (President 2008 – Present)	2000 - Present
Society of Neuro-Oncology (SNO)	1998 - Present
Walter Dandy Society	1999 - Present
India Neurosurgery Congress	2006 - Present
India Spine Society	2007 - Present
Congress of State Neurosurgical Societies	2007 - Present
RI Brain and Spine Foundation (President)	2007 - Present

PUBLICATIONS LIST

ORIGINAL PUBLICATIONS IN PEER - REVIEWED JOURNALS

- 1. Hitchcock-Degregori S, Sampath P, Pollard TD. Tropomyosin inhibits the rate of actin polymerization by stabilizing actin filaments. Biochemistry 27(26): 9182-9185, 1988.
- Sampath P, Pollard TD. Effects of cytochalasin, phalloidin and pH on elongation of actin filaments. <u>Biochemistry</u> 30(7): 1973-1980, 1991.
- Sampath P, Yeo CJ, Campbell JN. Nerve injury associated with laparoscopic inguinal herniorrhaphy. <u>Surgery</u> 118(5): 829-833, 1995.
- 4. Zeidman S, Sampath P, Rhines L, Rigamonti D. Spinal epidural abscess. Contemporary Neurosurgery 17(7), 1995.
- 5. Sampath P, Holliday MJ, Brem H, Niparko JK, Long DM. Facial nerve injury in acoustic neuroma (vestibular schwannoma) surgery: prevention and etiology. <u>J Neurosurgery</u> 87: 60-66, 1997.
- 6. Sampath P, Brem H. "Implantable slow-release chemotherapeutic polymers for the treatment of malignant brain tumors." <u>Cancer Control</u> 5(2):130-137, 1998.
- 7. Ewend MG, Sampath P, Williams JW, Tyler BM, Brem H. "Local delivery of chemotherapy prolongs survival in experimental brain metastases from breast carcinoma." Neurosurgery 43(5):1185-1193, 1998.
- 8. Chou D, Sampath P, Brem H. "Hemorrhagic vestibular schwannoma: an unusual clinical entity." <u>Neurosurg Focus</u> 5(3):Article 9, 1998.
- 9. Long DM, Sampath P. Middle fossa or suboccipital approach? J Neurosurgery 89: 347-348, 1998.
- 10. Sampath P, Rhines L, Goel R, Long DM. Cranial nerve preservation in contemporary vestibular schwannoma (acoustic neuroma) surgery. Critical Reviews in Neurosurgery. 8(2): 86-96, 1998.
- 11. Clatterbuck RE, Sampath P, Olivi A. Transitional cell carcinoma presenting as a solitary brain lesion: a case report and review of the world literature. <u>Journal of Neuro-oncology</u> 39: 91-94, 1998.
- 12. Sampath P, Rhines L, Holliday MJ, Brem H, Long DM. Late onset facial nerve palsy after vestibular schwannoma surgery. Incidence, putative mechanisms and prevention. <u>Neurosurg Focus</u> 5(3): 6, 1998.
- 13. Holliday MJ, Sampath P. Decompression of the labyrinthine segment of the facial nerve in acoustic neuroma surgery: a consideration for minimizing delayed facial nerve dysfunction. Neurosurg Focus 5(3): 7, 1998.
- 14. Sampath P, Rini D, Long DM. Microsurgical anatomical variations in the Cerebellopontine Angle associated with acoustic neuromas (vestibular schwannomas). Neurosurg Focus 5(3): 1, 1998.

- 15. Sampath P, Holliday MJ, Brem H, Niparko JK, Long DM. Prevention of facial nerve injury in vestibular schwannoma surgery. Neurosurg Focus 5(3): 4, 1998.
- 16. Sampath P, Brem H. Implantable slow-release chemotherapeutic polymers for the treatment of malignant brain tumors. <u>Cancer Control March/April 5: 31-38, 1998.</u>
- 17. Sampath P, Hanes J, DiMeco F, Tyler BM Brat D, Pardoll D, Brem H. Paracrine immunotherapy with interleukin-2 and local chemotherapy is synergistic in the treatment of experimental brain tumors. <u>Cancer Research</u> 2107-2114, 1999.
- 18. Goel R, Sampath P, Mekalian O. Dysphagia due to cervical osteophytes. Three cases treated successfully by surgery. Otolaryngology Head Neck Surg 120(1): 92-96, 1999.
- 19. Rigamonti D, Liem L, Sampath P, Knoeller N, Numaguchi Y, Schreibman D, Sloan M, Wolf A, Zeidman S. Spinal epidural abscess: Contemporary trends in etiology, evaluation and management. <u>Surgical Neurology</u> 52(2): 189-196, 1999.
- 20. Guerin C, Sampath P, Long DM. The suboccipital approach to acoustic neuroma. Ann Acad Med Singa 28(3): 402-408, 1999.
- 21. Sampath P, Rigamonti D. Spinal epidural abscess: clinical update of epidemiology, diagnosis, and treatment. <u>Journal of Spinal Disorders</u> 12(2): 89-93, 1999.
- 22. Sampath P, Bendebba M, Davis JD, Ducker TD. Outcome of patients with subacute radiculopathy: a prospective, multicenter study with independent clinical review. Spine 24(6): 591-597, 1999.
- 23. Sampath P, Rini D, Long DM. Vascular and Cranial Nerve Microsurgical Anatomy Associated with Acoustic Neuromas (Vestibular Schwannoma). Proceedings of the Fifth Meeting of the British Neurosurgical Research Group (Sir William Macewen Sesquicentennial). Brit J Neurosurgery 13(1): 101-118, 1999.
- 24. Sampath P, Long DM, Brem H. The Hunterian Surgical Laboratory: the first 100 years of neurosurgical research. Neurosurgery 46: 184-195, 2000.
- 25. Sampath P, Bendebba M, Davis JD, Ducker TD. Outcome of patients with cervical myelopathy. A prospective, multicenter study with independent clinical review. Spine 25(6): 670-676, 2000.
- Sampath P, Rini D, Long DM. Microanatomical variations in the Cerebellopontine Angle associated with vestibular schwannomas (acoustic neuromas): An analysis of 1006 consecutive cases. <u>J Neurosurgery</u> 92: 70-78, 2000.
- Solero CL, DiMeco F, Sampath P, Mattavelli F, Pizzi N, Salvatori P, Cantu G. Combined anterior craniofacial resection for tumors involving the cribform plate: early postoperative complications and technical considerations. <u>Neurosurgery</u> 47: 1296-304, 2000.
- 28. Klink DF, Sampath P, Miller NR, Brem H, Long DM. Long-term visual outcome after non-radical microsurgery in patients with parasellar and cavernous sinus meningiomas. Neurosurgery 47(1):24-32, 2000.
- 29. Rhines LD, Sampath P, Dolan ME, Tyler BM, Brem H, Weingart J. "O Benzylguanine potentiates the antitumor effect of locally delivered carmustine against an intracranial rat glioma." <u>Cancer Research</u> 60:6307-6310, 2000.
- 30. DiMeco F, Rhines LD, Hanes J, Tyler BM, Brat D, Torchiana G, Sampath P, Guarnieri MP, Colombo MP, Pardoll DM, Finocchiaro G, Brem H, Olivi A. Paracrine delivery of IL-12 against 9L gliosarcoma in rats. <u>J Neurosurgery</u> 92: 419-427, 2000.
- 31. Lesniak MS, Sampath P, DiMeco F, Viglione MP, Pardoll DM, Brem H. Comparative analysis of paracrine immunotherapy in experimental brain tumors. Neurosurg Focus 9(6): 4, 2000.
- 32. Klink DF, Sampath P, Miller NR, Long DM. Cavernous sinus and parasellar benign tumors: Long term visual outcome. <u>Am J Opthalmol</u> 130(5): 689, 2000.
- 33. Hillis AE, Anderson NB, Sampath P, Rigamonti R. Cognitive impairments after surgical repair of ruptured and unruptured aneurysms. <u>J Neurosurg Neurol Psych</u> 69(5): 608-15, 2000.
- 34. Liu JM, Garonzik IM, Eberhart CG, Sampath P, Brem H. Ectopic recurrence of craniopharyngioma after an interhemispheric transcallosal approach: case report. Neurosurgery 50(3): 639-44, 2002.

- 35. Sampath P, Amundson E, Wall ME, Tyler BM, Wani MC, Alderson LM, Colvin M, Brem H, Weingart JD. Camptothecin analogs in malignant gliomas: comparative analysis and characterization. <u>J Neurosurgery</u> 2003 Mar; 98(3):570-7.
- 36. Rhines LD, Sampath P, DiMeco F, Lawson HC, Tyler BM, Hanes J, Olivi A, Brem H. Local immunotherapy with interleukin-2 delivered from biodegradable polymer microspheres combined with interstitial chemotherapy: a novel treatment for experimental malignant glioma. Neurosurgery 2003 Apr; 52(4):872-9; discussion 879-80.
- 37. Sampath P, Weaver CE, Sungarian A, Cortez S. Alderson L, Stoppa EG. Cerebrospinal fluid (vascular endothelial growth factor) and serologic (recoverin) tumor markers for malignant glioma. <u>Cancer Control</u> 2004 May-Jun; 11(3):174-80.
- 38. Sampath P, Rhines LD, DiMeco F, Tyler BM, Park MC, Brem H. Interstitial Docetaxel (Taxotere), carmustine and combined interstitial therapy: a novel treatment for experimental malignant glioma. <u>J.Neuro-Oncology</u> 2006, 80:9-17.
- 39. Sampath P, Park MC, Huang D, Deville C, Cortez S, Chougule P. Esthesioneuroblastoma (olfactory neuroblastoma) with hemorrhage: an unusual presentation. Skull Base: An Interdisciplinary Approach 2006, 16:169-173.
- 40. Lawson C, Bohan E, Sampath P, Olivi A, Williams J, Weingart JD, Brem H. Polymers to treat Brain Tumors: The Johns Hopkins Experience. Journal of Neuro-oncology 2006, Dec 14.
- 41. Mandigo C, Sampath P, Kaiser M. Posterior dynamic stabilization of the lumbar spine: pedicle-based stabilization with the Accuflex rod system. Neurosurg Focus 22(1): E9, 2007.
- 42. Park MC, Weaver Jr. CE, Donahue JE, Sampath P. Intracavitary chemotherapy (Gliadel®) for recurrent esthesioneuroblastoma: case report and review of the literature. <u>Journal of Neuro-oncology</u> 2006, 77:47-51.
- 43. Friehs GM, Park MC, Goldman MA, Zerris VA, Noren G, Sampath P. Stereotactic radiosurgery for functional disorders: Neurosurger Focus. 2007;23(6):E3.
- 44. Lawson HC, Sampath P, Bohan E, Park MC, Hussain N, Olivi A, Weingart J, Kleinberg L, Brem H. Interstitial chemotherapy for malignant gliomas: The John Hopkins Experience. <u>Journal of Neuro-oncology</u> 2007, May:83(1):61-70.
- 45. Park MC, Goldman MA, Donahue J, Goel R, Tung G, Sampath P. Endonasal ethmoidectomy and bifrontal craniotomy with craniofacial approach for resection of frontoethmoidal osteoma causing tension pneumocephalus. <u>Skull Base.</u> 2008 Jan;18 (1):67-72.
- 46. Sungarian A, Cielo D, Sampath P, Bowling N, Moskal P, Wands JR, de la Monte SM. Potential role of thymosin-alpha1 adjuvant therapy for glioblastoma. <u>Journal of Neuro-oncology</u> 2009:302084
- 47. Dewan S, Stopa E, Alderson L, Sampath, P. Irinotecan and BCNU Impregnated Wafers Used in Combination for the Treatment of Patients with Recurrent Glioblastoma Multiforme. <u>Journal of Carcinogenesis and Mutagenesis</u>. 2010, September 01, 1:102.
- 48. Kong S, Sengupta S, Tyler B, Bais A, Ma Q, Dougette S, Zhou J, Sahin A, Carter B, Brem H, Junghans R, Sampath P. Suppression of Human Glioma Xenografts with 2 Generation IL13R-Specific Chimeric Antigen Receptor-Modified T Cells. Clinical Cancer Research. 2012, 18 (21): 5949-5960.
- 49. Sengupta S, Marrinan J, Frishman C, Sampath P. Impact of Temozolomide on Immune Response during Malignant Glioma Chemotherapy. <u>Clinic and Developmental Immunology</u>. 2012; 831090.
- 50. Thaci B, Brown CE, Binello E, Werbaneth K, Sampath P, Sengupta S. Significance of Interleukin-13 Receptor alpha 2- targeted Glioblastoma Therapy. Neuro-Oncology. 16 (10): 1304-1312, 2014.
- 51. Sengupta S, Thaci B, Crawford AC, Sampath P (2014). Interleukin-13 Receptor alpha 2-targeted Glioblastoma Immunotherapy. <u>Biomed Research International.</u> 2014:952128, 2014.
- 52. Sengupta S, Mao G, Gokaslan Z, Sampath P (2016). CAR-T cells for treatment of GBM: A practical review of challenges and ways to overcome them. *Cancer Gene Therapy*, 24(3):121-129.
- 53. Mao G, Sampath P, Sengupta S, (2017). Updates on Chimeric Antigen Receptor-Mediated Glioblastoma Immunotherapy, *Rhode Island Journal of Medicine*, 100 (6):39-42.
- 54. Sengupta S, Katz S, Sengupta S, Sampath P (2018). Glycogen Synthase Kinase 3 Inhibition Lowers PD-1 Expression, Promotes Long-term Survival and Memory Generation in Antigen-specific CAR-T cells. *Cancer Letter*, 433:131-139.

PUBLICATIONS SUBMITTED OR IN PREPARATION

- Gergi M, Sengupta S, Longo SL, Viapiano MS, Sampath P, Sengupta S (2019). Targeting glioma stem cells with IL13Rα2-specific CAR-T cells in xenograft animal models. *Journal of Neuro-Oncology* (submitted)
- Sengupta S, Nandhu MS, Sengupta S, Longo SL, Sampath P, Chiocca EA, Viapiano MS (2019). Extracellular matrix-targeted CAR-T cells eliminates tumors in glioblastoma xenografts. *Science Translational Medicine* (submitted)

OTHER PEER-REVIEWED PUBLICATIONS

- 1. Sampath P, Davis JD, Bendebba M, Ducker TD. Overview of patients with axial neck pain in the Cervical Spine Research Society (CSRS) Study. Spine. In press.
- 2. Alva S, Nikata K, Sampath P. Overcoming the blood-brain and blood-tumor barriers. Current Pharmaceut Biotech. In press.
- 3. Sampath P, Long DM. Acoustic neuroma. A historical perspective. Neurosurgery Quarterly. In press.
- 4. DiMeco F, Falcone C, Sampath P, Barus D, Torbica A, Lazzaro Solero C, Fillippini G. The Effect of Hospital Volume on Outcomes for Resection of Brain Tumors in Italy. <u>Journal of the National Cancer Institute</u>. In press.
- 5. Sampath P, Davis JD, Ducker TD, Bendebba M. Patient Demographic and Treatment Practices in the Cervical Spine Research Society (CSRS) Study. <u>Journal of Spinal Disorders</u>. In press.
- 6. De la Monte SM, Neely TR, Sungarian A, Sampath P, Wands JR. Improved method of gene transfer into neuronal cells: Utility for generating experimental models of neurodegeneration. <u>Lab Invest</u>. In press.

BOOKS AND BOOK CHAPTERS

- 1. Sampath P, Rigamonti D. Spinal epidural infections. In: Proceedings of the main topic sessions of the 11th International Congress of Neurological Surgery. ISI Philadelphia, PA, p157-162, 1997.
- 2. Sampath P, Stern B, Clatterbuck RE, Rigamonti D. Neurosarcoidosis. In: <u>Infections of the Central Nervous System: Diagnosis and Management</u>. Osenbach RK, Zeidman SM (eds). Lippincott-Raven, Philadelphia, PA, p227-239, 1999.
- 3. Sampath P, Long DM. Pathological microanatomical variations in the cerebellopontine angle: a study in acoustic neuromas. In: Proceedings of the Third International Conference on Acoustic Neurinoma and Other CPA Tumors. ISI Philadelphia, PA, 1999.
- Sampath P, Long DM. Late onset facial nerve palsy: a rare complication following vestibular schwannoma (acoustic neuroma) microsurgery. In: <u>Proceedings of the Third International Conference on Acoustic Neurinoma and Other CPA Tumors</u>. ISI Philadelphia, PA, 1999.
- Sampath P, Long DM. Facial nerve preservation in vestibular schwannoma microsurgery: The Johns Hopkins Hospital experience, 1973-1994. In: <u>Proceedings of the Third International Conference on Acoustic Neurinoma and Other CPA Tumors</u>. ISI Philadelphia, PA, 1999.
- Sampath P, Carbone J, Kostuik J, Rigamonti D. Injuries of the cervical spine. In: <u>Operative Neurosurgical Techniques: Indications</u>, <u>Methods and Results</u>.
 Edition. Schmidek HH, Sweet W. W.B. (eds). Saunders Co. Philadelphia, PA. p2038-2055, 2000.
- 7. Sampath P, Long DM. Acoustic Neuoma. In: <u>Youmans Neurological Surgery</u> 5th Edition. Winn HR, Dacey RC (eds). Saunders, Philadephia, PA, Vol 1:p1147-1168, 2004.
- 8. Hua SE, Clatterbuck RE, Stern BJ, Sampath P, Rhines LD. Sarcoidosis, Tuberculosis, and Xanthogranulomas. In: <u>Youmans Neurological Surgery</u> 5th Edition. Winn HR, Dacey RC (eds). Saunders, Philadephia, PA, Vol 1:p1435-1447, 2004.
- 9. Zerris VA, Friehs GM, Sampath P. Surgical Management of Injuries of the Cervical Spine and Spinal Cord. In: Operative Neurosurgical Techniques 5 Edition. Schmidek HH, Roberts DW (eds). Elsevier, Philadephia, PA, 2005.
- 10. Sampath P, Goradia T, North RB. Future Technologies. In: <u>Textbook of Neurological Surgery</u>. Batjer HH, Loftus CM (eds). Lippincott-Raven, Philadelphia, PA.

- 11. Sampath P, Long DM. From simple cure to cranial nerve preservation: thirty years of vestibular schwannoma (1969-1999) microsurgery. In: <u>Advances in Clinical Neurosciences</u>. Sinha KK, Chandra P (eds). Ranchi, India.
- 12. Sampath P, Carson BS. Congenital spinal lesions of the upper cervical spine. Neurosurgery Quarterly.
- 13. Sungarian A, Sampath P. Contemporary strategies for increasing anti-tumor treatments to the brain. <u>In Advances in Clinical Neurosciences</u>. Sinha KK, Chandra P (eds). Ranchi, India.

Books

1. Sampath P. Neurosurgical Procedures. <u>Manual of Common Bedside Surgical Procedures</u>. Williams and Wilkins, Biltmore, MD. p166-188, 1996.

OTHER NON-PEERED REVIEWED PUBLICATIONS

1. Web-based Program

Second-Opinion.Com. Ltd. (on-line web service to provide second opinions to patients from India. Chennai, India. Est. 2005.

2. Medico-Legal Education Program

- I. Traumatic Brain Injury as it Relates to MVA: Fundamental Concepts and Physiology. October 18, 2006.
- II. Cervical Spine Injuries: Etiology, Diagnosis and Treatment. April 12, 2007.

ABSTRACTS

- 1. Duigou GJ, Desai R, Sampath P, Bruce JN. Expression of Multidrug Resistance 1 gene (MDR-1) in primary central nervous system tumors. American Association of Neurological Surgeons Meeting, New Orleans, LA April 20-25, 1991.
- 2. Sampath P, Holliday MJ, Brem H, Long DM. Immediate and delayed facial nerve paralysis in acoustic tumor surgery. Etiologies and prevention. Sixth annual North American Skull Base Society Meeting, Naples, FL, February 18-21, 1995.
- 3. Sampath P, Zeidman S, Rigamonti D. Spinal epidural abscess: a review of 75 cases. European Congress of Neurological Surgeons, Berlin, Germany, May 11 15, 1995.
- 4. Davis JD, Bohan E, Olivi A, Long DM, Weingart JD, Sampath P, Brem H. Clinical experience with Gliadel at the Johns Hopkins Hospital. Society of Neuro-Oncology, Santa Fe, NM, 1996.
- 5. Ewend MG, Sampath P, William JA, Tyler BM, Sandhu JS, Brem H. "Local delivery of chemotherapy prolongs survival in an intracranial model of metastatic breast carcinoma." The American Association of Neurological Surgeons, Denver, CO, April 12-17, 1997.
- 6. Sampath P, Perry V, Teebo S, Carson BS. Frameless stereotaxy for placement of intraventricular catheters during shunting procedures. American Association of Neurological Surgeons Meeting, Denver, CO, April 12-17, 1997.
- Sampath P, Holliday MJ, Brem H, Long DM. Facial nerve preservation in vestibular schwannoma surgery. The Research Society of Neurologic Surgeons and British Neurosurgery Research Group, Jackson, MI, June 19-21, 1997.
- 8. Sampath P. Spinal epidural, subdural, and intraparenchymal infections. International Congress of Neurological Surgeons. Amsterdam, Netherlands, July 4-9, 1997.
- 9. Sampath P, Goel R, Brem H. Arterial considerations in skull base surgery. American Academy of Otolaryngology, San Francisco, September 11-15, 1997.
- 10. Klink D, Sampath P, Weingart JD, Long DM, Miller N. Long term visual outcome after parasellar meningioma surgery. Congress of Neurological Surgeons Meeting, New Orleans, LA, Sept 28 Oct. 2, 1997.

- 11. Sampath P, Davis JD, Wall ME, Mansukh CW, Tyler B, Brem H, Weingart JD. "Camptothecin analogs: Effect in vitro against glioma cell lines." Congress of Neurological Surgeons, New Orleans, LA, Sept 27-Oct 2, 1997.
- 12. Sampath P, Hanes J, Tyler B, Pardoll D, Brem H. "Combined local delivery of Il-2 and chemotherapy prolongs survival in the treatment of intracranial B16 melanoma." Congress of Neurological Surgeons, New Orleans, LA, Sept 27-Oct 2, 1997.
- 13. Sampath P, Weingart JD, Davis JD, Tyler B, Wani MC, Wall ME, Brem H. "Cytotoxicity of camptothecin analogs in vitro against glioma cell lines." The Society for Neuro-Oncology, Oct 31-Nov 2, 1997.
- 14. Watts M, Sampath P, Sills A, Ewend M, Bunton T, Dang W, Yazdi H, Pinn M, Tyler B, Brem H. "Safety of intracranial 20% BCNU in PCPP: SA 20:80 polymer in primates." The Society for Neuro-Oncology, Charlottesville, VA, October 31-November 2, 1997.
- 15. Brem H, Olivi A, Sampath P, Williams J, Weingart J. "Polymers to treat brain tumors: The Johns Hopkins Experience." The Society for Neuro-Oncology, Charlottesville, VA, October 31-November 2, 1997.
- 16. Sampath P, Davis JD, Bendebba M, Ducker TD. Outcomes in patients with cervical myelopathy. A prospective study with independent clinical review. AANS/CNS Spine Section Annual Meeting. Rancho Mirage, Feb. 11-14, 1998.
- 17. Davis JD, Sampath P, Bendebba M, Ducker TD. Outcomes in patients with neck pain. A prospective study with independent clinical review. AANS/CNS Spine Section Annual Meeting. Rancho Mirage, Feb. 11-14, 1998.
- 18. Sampath P, Rhines LD, Brem H. The Hunterian Surgical Laboratory: the first 100 years. American Association of Neurological Surgeons Meeting, Philadelphia, PA, April 25-30, 1998.
- Sampath P, Davis JD, Bendebba M, Ducker TB. Outcome analysis of patients with isolated neck pain in the United States. Results of the Cervical Spine Research Society Study. American Association of Neurological Surgeons Meeting, Philadelphia, PA, April 25-30, 1998.
- Davis JD, Sampath P, Bendebba M, Ducker TB. Outcome analysis of patients with myelopathy in the United States. Results of the Cervical Spine Research Society Study. American Association of Neurological Surgeons Meeting, Philadelphia, PA, April 25-30, 1998.
- 21. Sampath P, Hanes J, Tyler BM, Pardoll D, Brem H. Local IL-2 delivery from genetically-engineered cells combined with local chemotherapy is synergistic in the treatment of a murine metastatic brain tumor. AANS/CNS Joint Section on Tumors, April 30- May 1, 1998.
- 22. Sampath P, Rhines L, Tyler B, Pinn M, Brem H. "Intracranial delivery of docetaxel (Taxotere) by biodegradable polymers for the treatment of 9L gliosarcoma." American Association of Neurological Surgeons, Philadelphia, PA, April 25-30, 1998.
- 23. Amundson EW, Sampath P, Tyler B, Brem H, Weingart JD. A mechanistic study of camptothecin analogues in gliomas. American Association of Neurological Surgeons, Philadelphia, PA, April 25-30, 1998.
- 24. Sampath P, Perry V, Gates J, Carson BS. Astroblastoma: a unique pathological entity. Clinico-pathological study of 13 cases. AANS/CNS Joint Section on Tumors, April 30-May 1, 1998.
- 25. Brem H, Olivi A, Weingart JD, Williams J, Sampath P. Implantable slow-release chemotherapeutic polymers for the treatment of brain tumors: The Johns Hopkins experience. American Society of Clinical Oncology, Los Angeles, CA, May 16-19, 1998.
- Sampath P, Rini D, Long DM. Vascular and Cranial Nerve Microsurgical Anatomy Associated with Acoustic Neuromas (Vestibular Schwannoma). British Neurosurgery Research Group. Sir William MaCewan Sesquicentennial Meeting. Glasgow, Scotland, May 22-24, 1998.
- Davis JD, Sampath P, Bendebba M, Ducker TD. Outcome of patients with axial neck pain in the American Cervical Spine Research Society Study. XIV Annual Meeting. Cervical Spine Research Society. European Section. Varese, Italy, September 17-19, 1998.
- Davis JD, Sampath P, Bendebba M, Ducker TD. Outcome of patients with axial neck pain in the American Cervical Spine Research Society Study. XIV Annual Meeting. Cervical Spine Research Society. European Section. Varese, Italy, September 17-19, 1998.
- 29. Sampath P. Acoustic Tumors: The Johns Hopkins Experience. Inaugural Skull Base Conference for Skull Base Society of India.

- New Delhi, India. September 25-27, 1998.
- 30. Sampath P, Dimeco F, Hanes J, Tyler B, Brat D, Pardoll D, Brem H. An experimental and histopathological study of intracranial paracrine immunotherapy with interleukin-2 used in combination with local chemotherapy. Congress of Neurosurgeons Meeting, Seattle, WA. October 3 8, 1998.
- 31. Sampath P, Brem H, Long DM. Neurosurgery before Harvey Cushing at the Johns Hopkins Hospital (1889 1904) and the considerable influence of William Halsted. Congress of Neurosurgeons Meeting, Seattle, WA, Oct 3 8, 1998.
- 32. Sampath P, Rini D, Long DM. Microanatomical Variations in the Cerebellopontine Angle Associated with Vestibular Schwannomas (Acoustic Neuromas): A Study of 1006 Consecutive Cases. Congress of Neurosurgeons Meeting, Seattle, WA, Oct 3 8, 1998.
- 33. Sampath P, Anderson NB, Gordon B, Rigamonti D. A prospective study of neurocognitive outcome after surgery for non-ruptured (grade 0) cerebral aneurysms. Congress of Neurosurgeons Meeting, Seattle, WA, Oct 3 8, 1998.
- 34. Sampath P, Anderson NB, Gordon B, Rigamonti D. Neuropsychologic outcome in low grade patients with aneurysmal subarachnoid hemorrhage. Congress of Neurosurgeons Meeting, Seattle, WA, Oct 3 8, 1998.
- 35. Sampath P, Rhines LD, Tyler B, Brem H. Combination Local Intracranial Delivery of Docetaxel (Taxotere) and Carmustine by Biodegradable Polymers for the Treatment of 9L Gliosarcoma. Congress of Neurosurgeons Meeting, Seattle, WA, Oct 3-8, 1998.
- 36. Rhines LD, Sampath P, Tyler BM, Dolan, OE, Weingart JD, Brem H: O6-Benzylguanine Potentiates the Effects of Locally Delivered Carmustine in an Intracranial Animal Brain Tumor Model. Congress of Neurosurgeons Meeting, Seattle, WA Oct 3-8, 1998.
- 37. Tyler BM, Hanes J, Sampath P, Pardoll D, Brem H. Local and systemic memory immune responses following treatment of metastatic brain tumors with allogeneic cells engineered to secrete IL-2. Congress of Neurological Surgeons, Seattle WA, Oct 3-8, 1998.
- 38. Rhines LD, Sampath, Tyler BM, Brem H. Increasing doses of locally delivered carmustine in a human, intracranial glioma model. The Society of Neuro-Oncology. Third Annual Meeting. San Francisco, CA, November 12-15, 1998.
- 39. Rhines LD, Sampath P, Dolan ME, Tyler B, Weingart J, Brem H. "Effect of locally-delivered carmustine is enhanced by O Benzylguanine in an intracranial brain tumor model." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.
- 40. Rhines LD, Sampath P, Tyler B, Brem H. "Increased doses of BCNU delivered locally via biodegradable polymers result in improved survival in an intracranial human glioma model." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.
- 41. Hanes J, Sampath P, Ewend MG, Tyler BM, Pardoll D, Brem H. "Local and systemic anti-tumor immunity elicited by intracranial implantation of The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.
- 42. Sampath P, Rhines L, Tyler B, Brem H. "Docetaxel (taxotere) in combination with carmustine delivered via biodegradable polymers for the treatment of 9L gliosarcoma." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.
- 43. Sampath P, Hanes J, DiMeco F, Brat D, Tyler B, Pardoll D, Brem H. "Paracrine immunotherapy with interleukin-2 and local chemotherapy is synergistic in the treatment of experimental brain tumors." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.
- 44. Sampath P, Anderson NB, Gordon B, Rigamonti R. A prospective study of neurocognitive outcome after surgery for non-ruptured (grade 0) cerebral aneurysms. Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and American Society of Interventional and Therapeutic Neuroradiology, 1999.
- 45. Sampath P, Perry, V, Long DM. Cystic Paraganglioma of the Cauda Equina. American Association of Neurological Surgeons Meeting, New Orleans, LA,1999.
- 46. Clatterbuck RE, Sampath P, Davis RD. Novel technique for lateral mass plate screw insertion in patients with intact posterior elements. American Association of Neurological Surgeons Meeting, New Orleans, LA, 1999.
- 47. Sampath P, Holliday MJ. Labyrinthine facial nerve decompression in acoustic neuroma surgery. Can it help reduce postoperative delayed facial nerve dysfunction? American Association of Neurological Surgeons Meeting, New Orleans, LA, 1999.

- 48. Sampath P, Rhines L, Holliday MJ, Brem H, Long DM. Late-onset Facial Nerve Weakness after Acoustic Neuroma Surgery: Incidence, Putative Mechanisms, and Prevention. American Association of Neurological Surgeons Meeting, New Orleans, LA, 1999
- 49. Sampath P, Clatterbuck RE, Rhines LD, Long DM. Neurosurgical manifestations of sarcoidosis. American Association of Neurological Surgeons Meeting, New Orleans, LA, 1999.
- 50. Chou D, Sampath P. Reconstruction of the temporalis muscle after *peritoneal* (?) or frontotemporal craniotomy: a novel technical note using titanium plates. American Association of Neurological Surgeons Meeting, New Orleans, LA ,1999.
- 51. Solero CL, DiMeco F, Sampath P, Salvadori P, Mattavelli F, Cantu G. Combined Anterior Craniofacial Resection for Tumors Involving the Cribiform Plate: Early Postoperative Complications and Technical Considerations. American Association of Neurological Surgeons Meeting, New Orleans, LA, 1999.
- 52. Sampath P, Anderson NB, Gordon B, Rigamonti R. Comprehensive neuropsychologic outcome in low grade patients after aneurysmal subarachnoid hemorrhage. Joint Meeting of the AANS/CNS Section on Cerebrovascular Surgery and American Society of Interventional and Therapeutic Neuroradiology, 1999.
- 53. Sampath P. The history of neurosurgery at The Johns Hopkins Hospital. Turkish Neurosurgical Society XIII Meeting. Istanbul, May 17-19, 1999.
- 54. Sampath P, Long DM. Acoustic neurinoma surgery (1973-1998): the Johns Hopkins Hospital Experience. Third Annual International Conference on Acoustic Neurinoma and Other CPA Tumors. June 12-16, 1999, Rome, Italy.
- 55. Sampath P, Rini D, Long DM. Microsurgical anatomy associated with acoustic neurinoma: a review of 1006 cases. Third Annual International Conference on Acoustic Neurinoma and Other CPA Tumors. June 12-16 1999, Rome, Italy.
- 56. Sampath P, Rhines L, Holliday MJ, Long DM. Late onset facial nerve palsy after vestibular schwannoma surgery. Incidence, putative mechanisms and prevention. Third Annual International Conference on Acoustic Neurinoma and Other CPA Tumors. June 12-16 1999, Rome, Italy.
- 57. Rhines L, Lawson HC, Bunton T, Sampath P, Tyler B, Weingart J, Brem H. "O6-Benzylguanine (BG) causes toxicity when administered in conjunction with biodegradable polymers containing increased BCNU loading doses." Congress of Neurological Surgeons, Boston, MA, October 30 November 4, 1999.
- 58. Rhines L, Sampath P, Lawson HC, Betchen S, DiMeco F, Tyler B, Brem H. "Interstitial polymeric delivery of Interleukin-2 (IL-2) combined with BCNU in the treatment of experimental glioma." Congress of Neurological Surgeons, Boston, MA, October 30 November 4, 1999.
- 59. DiMeco F, Brem H, Lawson C, Bohan Eileen, Sampath P, Weingart J, Olivi A. Interstitial chemotherapy for malignant gliomas: the Johns Hopkins experience. Associazione Italiana di Neuro-Oncologia, Milano, November 17-19, 1999.
- 60. Rhines LD, Bunton T, Lawson HC, Sampath P, Tyler BM, Weingart J, Brem H. "Intracranially implanted biodegradable polymers containing increased BCNU loading doses cause toxicity when combined with systemically delivered O benzylguanine." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- 61. Rhines LD, Lawson HC, Perry VL, DiMeco F, Sampath P, Tyler B, Brem H. "Synergy of locally delivered adriamycin and interleukin-2 in the treatment of intracranial 9L gliosarcoma." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- 62. Rhines LD, Sampath P, Betchen S, Lawson HC, DiMeco F, Tyler B, Brem H. "Combined interstitial delivery of interleukin-2 from microspheres and BCNU from polymer wafers for the treatment of experimental glioma." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- 63. Liu J, Garonzik I, Sampath P, Brem H. Ectopic recurrence of craniopharyngioma: a rare postoperative complication after microsurgery. American Associated of Neurological Surgeons, San Francisco CA, April 1-5, 2000.
- 64. Lesniak, MS, Sampath P, DiMeco F, Viglione M, Pardoll D, Brem H. Comparative Analysis of Cytokines in the Immunotherapy of Brain Tumors. American Associated of Neurological Surgeons, San Francisco CA, 2000.

- 65. Garonzik IM, Liu J, Sampath P, Wang P, Brem H. "Ectopic recurrence of craniopharyngioma after an interhemispheric, transcallosal approach." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- 66. Sungarian A, Maestri X, Sampath P, Alderson LM. A-Protein (Recoverin): a novel plasma marker for malignant glioma. The Congress of Neurological Surgeons Annual Meeting. 50th Anniversary Celebration. San Antonio, TX, September 23-28, 2000.
- 67. Khan AM, Tobias M, Sungarian A, Alderson LM, Sampath P. Post-operative following carmustine polymer placement mimicking intracranial infection: Report of four cases. The Congress of Neurological Surgeons Annual Meeting. 50th Anniversary Celebration. San Antonio, TX, September 23-28, 2000.
- 68. Har-el Y, Rhines L, Sampath P, Haroun R, Brem H, Hanes J. "Polymeric co-delivery of chemotherapeutics and cytokines for the treatment of experimental brain tumors." American Institute of Chemical Engineers, Los Angeles, CA, November 12-17, 2000.
- 69. Alderson LM, Hoffman K, Sampath P, Maestri X, Epstein M. A-Protein (Recoverin): a plasma tumor marker in patients with glioma. The Society of Neuro-Oncology, Fifth Annual Meeting, Chicago, IL, November 9-12, 2000.
- 70. Sampath P. Cerebrospinal fluid vascular endothelial growth factor in patients with brain tumors. The Society of Neuro-Oncology, Fifth Annual Meeting, Chicago, IL, November 9-12, 2000.
- 71. Makker JV, Anderson G, Steide JA, Alderson LM, Noren G, Sampath P. Comparative analysis of stereotactic radiosurgery versus conventional surgery for asymptomatic solitary cerebral metastases. Annual Meeting of the American Association of Neurological Surgeons, Toronto, Ontario, April 21-26, 2001.
- 72. Khan AM, Steide JA, Alderson LM, Sampath P. Morbidity and mortality associated with craniotomy for tumors in Octogenarians and nonagenarians. Annual Meeting of the American Association of Neurological Surgeons, Toronto, Ontario, April 21-26, 2001.
- 73. Sampath P, Garg R, Capparella J, Alderson L. Pregnancy in Patients with Established Malignant Glioma. American Association of Neurological Surgeons, Toronto, Ontario, 2001.
- Sungarian A, Sampath P, Maestri X, Alderson L. CPT-11 Used in Combination with BCNU-Impregnated Polymer (Gliadel) in the Treatment of Recurrent Glioblastoma Multiform: A Preliminary Clinical Study. Congress of Neurological Surgeons, San Diego, CA, 2001.
- 75. Sampath P, Friehs GM. Displaced Posterior Lumbar Interbody Fusion (PLIF) Spacer: A Rare Complication after Lumbar Spinal Fusion Surgery. Congress of Neurological Surgeons, San Diego, CA, 2001.
- 76. Sungarian A, Sampath P, de la Monte S. Evaluation of Polymeric Vehicles for Gene Delivery and Expression in the CNS. Congress of Neurological Surgeons, San Diego, CA, 2001.
- 77. Maron BA, Sungarian A, Sampath P, Wands JR, de la Monte S. Nitric oxide synthesis (NOS3)-mediated neurodegeneration. Annual Meeting of the American Association of Neurological Surgeons, Toronto, Ontario, April 21-26, 2001.
- 78. Sampath P, Sungarian A, Alderson L, de la Monte S. A Promising New Strategy for Gene Therapy: Evaluation of Polymeric Vehicles for Gene Delivery and Expression in the CNS. Society for Neuro-Oncology, 6 Annual Meeting and World Federation of Neuro-Oncology First Quadrennial Meeting, 2001.
- 79. Alderson L, Sampath P. A proposal for an open brain tumor consortium. Society for Neuro-Oncology, 6 Annual Meeting and World Federation of Neuro-Oncology First Quadrennial Meeting. Neuro-Oncology 3(4): 337, 2001.
- 80. Alderson L, Maestri X, Sampath P. BCNU-impregnated wafers (GLIADEL) and irinotecan are more effective in patients with recurrent th

 GBM than GLIADEL alone. Society for Neuro-Oncology, 6 Annual Meeting and World Federation of Neuro-Oncology First Quadrennial Meeting. Neuro-Oncology 3(4): 354, 2001.
- 81. Alderson L, Sampath P, Maestri_{III}X, Calabresi P. Phase I/II study of intravenous taurolidine in patients with recurrent GBM. Society for Neuro-Oncology, 6 Annual Meeting and World Federation of Neuro-Oncology First Quadrennial Meeting. Neuro-Oncology 3(4): 354, 2001.
- 82. Alderson LM, Maestri X, Sungarian A, Sampath P. Intravenous CPT-11 in combination with BCNU-impregnated polymer wafers (GLIADEL) for the treatment of patients with recurrent glioblastoma multiforme. European Association for Neuro-Oncology, Fifth Annual Meeting. Neuro-Oncology 4(Suppl. 1):S3, 2002.

- 83. Alderson LM, Sampath P, Maestri X, Calabresi P. Phase I/II study of intravenous taurolidine in patients with recurrent glioblastoma multiforme (GBM). European Association for Neuro-Oncology, Fifth Annual Meeting. Neuro-Oncology 4(Suppl.1):S3, 2002.
- 84. Sungarian A, Sampath P, Alderson L, de la Monte S, A Thymus-derived Immunomodulator (Thymosin a-1): A Novel Treatment of Experimental Glioblastoma. Congress of Neurological Surgeons, Denver, CO, 2003.
- 85. Sampath P, Cobb M, Olsen M, Goel R. Post-operative Dysphonia after Anterior Spinal Surgery with or without Plating: A Prospective Study with Independent Clinical Review. Congress of Neurological Surgeons, Boston, MA, 2005.
- 86. Sampath P, Cobb M, Olsen M, Goel R. Post-operative Dysphagia after Anterior Spinal Surgery with or without Plating: A Prospective Study with Independent Clinical Review. Congress of Neurological Surgeons, Boston, MA, 2005.
- 87. Sampath P, Weaver CE, Alderson L, Duncan JA, Stopa E, Fountas KN. Consecutive use of Brachytherapy (Gliasite) and Intratumoral Chemotherapy (Gliadel) for Recurrent Glioblastoma. A Phase I/II Study with Independent Clinical Review. Congress of Neurological Surgeons, Boston, MA, 2005.
- 88. Sampath P, Lawson C, Bohan E, Olivi A, Weingart JD. 19 Years of Experience at the Johns Hopkins Hospital with Interstitial Chemotherapy using Gliadel Wafer in the Treatment of Malignant Glioma. Congress of Neurological Surgeons, Boston, MA, 2005
- 89. Sampath P, Sungarian A, Alderson L, Stopa E. BCNU-impregnated Wafers (Gliadel) Plus Irinotecan (Camptosar) in Combination Treatment for Patients with Recurrent Glioblastoma Multiforme. Congress of Neurological Surgeons, Boston, MA, 2005.
- 90. Sampath P, Goldman M, Boxerman J, Rogg J. The Utility of Diffusion-Weighted Magnetic Resonance Imaging in Accurately Predicting the Ability to Aspirate Brain Tumor Cysts. Congress of Neurological Surgeons, Boston, MA, 2005.
- 91. Sampath P, Cobb M, Olsen M. Anterior Cervical Corpectomy Using Expandable Cages: Advantages, Disadvantages and Technical Considerations. Selby Spine Conference. Park City, UT February 1-5, 2007.
- 92. Kong S, Junghans R, Sampath P. Generation of Potent Designer T Cells Specific for Malignant Glioma. 4 Aspen Symposium on Brain Tumor Immuno-and Gene Therapy Conference. Aspen, CO August 9 12, 2009.
- 93. Sampath P, Junghans R, Kong S. Generation of IL13.E11K.R107K Designer T Cells Specific for Malignant Glioma. 2009 Joint Meeting of the Society for Neuro-Oncology and the AANS/CNS Section of Tumors. New Orleans, Louisiana October 22 24, 2009.
- 94. Kong S, Dewan S, Junghans R, Sampath P. Novel high affinity "Designer" (chimeric) T cells (IL13.E11K.R107K) against malignant glioma. 2009 Congress of Neurological Surgeons Annual Meeting. New Orleans, Louisiana October 24 29, 2009.
- 95. Kong S, Junghans R, Sampath P. Monomeric Designer T Cells are more potent against IL13Ra2 expressing. GBM. American Society of Gene and Cell Therapy Abstract ID# 935. 2010
- 96. Kong S, Junghans R, Sampath P. Genetically engineered malignant glioma-specific T cells resistant to glucocorticoids. American Society of Gene and Cell Therapy Abstract ID#182. 2010
- 97. Sengupta S, Sampath, P. (2013). IL13Rα2-overexpressing malignant glioma cells that are resistant to radiation therapy can be successfully targeted by IL13CAR-expressing T cells. 4th Quadrennial Meeting of the World Federation of Neuro-Oncology, San Francisco, CA. November 21-24, 2013.
- 98. Sengupta S, Sampath, P. (2014). Inhibition of glycogen synthase kinase 3 beta promotes long term cytokine-free survival of chimeric antigen receptor-expressing T cells. The Annual Meeting of the American Association of Immunologists, Pittsburg, PA, May 2-6, 2014.
- 99. Sengupta S, Balyasnikova IV, Lesniak MS, Junghans R, Sampath, P. (2014). Targeting IL13R alpha2 heterogeneity in malignant glioma with engineered T cells. <u>AACR Annual Meeting 2014</u>, San Diego, CA. April 5-9, 2014.
- 100. Mangraviti A, Sengupta S, Seng M, Pinheiro L, Rowshanshad D, Paldor I, Tyler B, Sampath P, Olivi S, Brem H. (2014). Assessment of IL13Rα2-dependent tumor aggression in an immunocompetent glioma animal model. 2014 Congress of Neurological Surgeons Annual Meeting. Boston, MA, October 18-22, 2014.

- 101. Sengupta S, Guha, P, Katz S, Sampath P. (2015). Inhibition of GSK3beta leads to increased survival, proliferation and memory Phenotype generation of GBM-specific CAR T cells. The Annual Meeting of the American Association of Immunologists, New Orleans, LA, May 8-12, 2015.
- 102. Sampath p, Sengupta S. (2015) T Cell Therapy against Malignant Brain Tumors. Novel treatments and Delivery. Neuro-Oncology. Conference at Cortona, Italy, July 2, 2015.

INVITED PRESENTATIONS

- 1. History of Neurosurgery at The Johns Hopkins Hospital. General Surgery Grand Rounds. Hurd Hall. Baltimore, MD, April 15-19, 1993.
- Walter Dandy of Johns Hopkins. Department of Neurosurgery, Johns Hopkins Hospital, Grand Rounds, Baltimore, MD, May 16, 1995
- 3. Spinal Infections. Main Topic Session Speaker. International Congress of Neurological Surgeons. Amsterdam, Netherlands, July 4-9, 1997.
- 4. Update on the Management of Malignant Gliomas in Adults. Lecture. Pitt Memorial Hospital. Weekly Oncology Conference. Greenville, NC, July 31, 1997.
- 5. Arterial Considerations in Skull Base Surgery. Course Instructor. Cerebrovascular Concerns in Skull Base Surgery. American Academy of Otolaryngology, San Francisco, September 1997.
- 6. Management of Malignant Gliomas. Lecture. East Carolina Medical Center, NC, September 5, 1997.
- 7. Contemporary Issues in The Management of Brain Tumors. Guest Lecturer. Department of Radiation Oncology. Brooklyn Hospital, November 23, 1997.
- 8. Invited Speaker. Oncology Grand Rounds. Lecture. St. Johns Hospital, Smithtown, NY, January 14, 1998.
- 9. Local Chemotherapy for Malignant Brain Tumors. Lecture. Portsmouth Naval Hospital, Norfolk VA, January 22, 1998.
- New Directions in Local Delivery to the Central Nervous System. Department of Neurosurgery. Grand Rounds Lecture. SUNY Downstate, Brooklyn, NY, April 3, 1998.
- 11. New Approaches in Brain Tumor Therapy. Department Of Oncology. Grand Rounds. Texas A&M School Of Medicine, Scott And White Hospital, Temple, TX, April 9, 1998.
- 12. Local Chemotherapy in Brain Tumor Treatment. Department of Neurological Surgery. Neuro-Oncology Grand Rounds. University of Rochester School of Medicine, Strong Memorial Hospital, April 14, 1998.
- 13. Interstitial Chemotherapy for Malignant Brain Tumors. Department of Neurosurgery. SUNY Syracuse, April 14, 1998.
- 14. New Approaches in Malignant Gliomas. Neuro-Oncology Neurosurgery Grand Rounds. SUNY Buffalo, April 15, 1998.
- 15. Neurosurgery Grand Rounds. Visiting Lecturer. Bellevue Hospital. NYU School of Medicine. New York, NY, May 8, 1998.
- Adjuvant Therapy for Malignant Brain Tumors. Neurosurgery Grand Rounds. Allegheny University Hospital, Philadelphia, PA, August 11th 1998.
- 17. Acoustic Tumors: The Johns Hopkins Experience. Inaugural Skull Base Conference for Skull Base Society of India. New Delhi, India. September 25-27, 1998.
- 18. Contemporary Management of Malignant Gliomas. Delaware Society of Clinical Oncology. Wilmington, DE, December 3, 1998.
- 19. Chemoimmunotherapy: A Novel Treatment Against Malignant Brain Tumors. Neurosurgery Grand Rounds. The Cleveland Clinic Foundation, Cleveland, OH, January 6, 1999.

- Research in the Hunterian Neurosurgery Laboratory. Neurosurgery Grand Rounds. Brown University School of Medicine. Rhode Island Hospital, Providence, RI, January 12, 1999.
- 21. Combined Local Chemotherapy and Paracrine Immunotherapy Against Experimental Brain Tumors. Neurosurgery Grand Rounds. Yale University School Of Medicine, Yale-New Haven Hospital, New Haven, CT, January 27, 1999.
- 22. Novel Treatments for Malignant Gliomas. UCLA Department of Neurosurgery. Los Angeles, CA, April 14, 1999.
- 23. Contemporary Aggressive Treatment of Malignant Gliomas. Neurosurgery Science Grand Rounds. Visiting Professor. Albany Medical Center. Albany, New York, December 2, 1999.
- 24. Contemporary CNS and Serologic Markers for Malignant Glioma. Visiting Professor. Department of Neurosurgery Grand Rounds. Johns Hopkins Medical Institutions. Baltimore, MD, September 19, 2002.
- 25. Gliadel® Wafer for the Upfront Treatment of Malignant Glioma. Monthly Oncology Conference. Caritas Norwood Hospital. Norwood, MA. October 22, 2002.
- Future Trends in Neurosurgery in India. Special Visiting Professor Guest Lecturer. Sir Ganga Ram Hospital. New Delhi, India. February 10, 2003.
- 27. Consecutive Use of Gliasite and Gliadel® in the Treatment of Recurrent Glioblastoma. New Strategies for Brain Tumor Therapy. Chicago, IL. August 8, 2004.
- 28. Fundamental Concepts in Spinal Biomechanics. What a Neurosurgeon Should Know. Guest Lecturer. Fortis Hospital, Noida, Utter Pradesh, India. November 12, 2004.
- Arthroplasty with the Charite Disk Replacement Device. Visiting Professor. Habitat Institute. New Delhi, India. November 15, 2004.
- 30. What is the Future of Arthroplasty in India? Visiting Professor. Habitat Institute. New Delhi, India, November 15, 2004.
- 31. Dysphagia After Anterior Cervical Fusion. Guest Lecturer. Selby Spine Conference. Park City, UT. February 2, 2006.
- 32. Current Management of Patients With Malignant Gliomas. Guest Lecturer. Louisville, KY. March 30, 2006
- 33. Emerging Treatment Options for Malignant Gliomas. Novel Approaches for Drug Delivery for Brain Tumors. Visiting Professor. University of Massachusetts. Worcester, MA. June 7, 2006.
- 34. Emerging Treatment Options for Malignant Gliomas. Translational Research: The New England Neuro-oncology consortium. Visiting Professor. Worcester, MA. June 7, 2006.
- 35. Globus Protex Instrumentation System. Guest Lecturer. PA Neurosurgical Annual Scientific Meeting. Hershey, PA. July 14, 2006.
- 36. Anterior Cervical Corpectomy Using Expandable Cages: Advantages, Disadvantages and Technical Considerations. Guest Lecturer. Selby Spine conference. Park City, UT. February 1, 2007.
- 37. Controversies in the management of metastatic brain tumors. 2 International Meeting. Updates in Neuro-Oncology. Cortona, Italy June 28 30, 2007.
- 38. Cirfumferential (360) Surgery for Cervical Spondylotic Myelopathy. Guest Lecturer. Selby Spine Conference. Park City, UT January 30 February 2, 2008.
- 39. Posterior Dynamic (soft) Stabilization: Initial Clinical Experience with The Globus Accuflex System. Guest Lecturer. Selby Spine Conference. Park City, UT January 30 February 2, 2008.
- 40. Contemporary Paradigms in Bone Graft Substitutes in Spine Surgery. Visiting Professor. Orlando Regional Medical Center Grand Rounds, Department of Orthopedic Surgery. Orlando, FL May 2, 2008.
- 41. Generation of Potent Designer T Cells Specific for Malignant Glioma. 4 Aspen Symposium On Brain Tumor Immuno And Stem Cell Therapy. Aspen, Colorado August 9 12, 2009.

- 42. Dynamic Plating in the Cervical Spine, Guest Lecturer. Stryker Spine Conference. Baltimore, Maryland August 13, 2010.
- 43. Guest Lecturer. Selby Spine Conference. 2009.
- 44. Guest Lecturer. Selby Spine Conference. 2010.
- 45. Guest Lecturer. Genetically Engineered Malignant Glioma-Specific T-Cells Resistant to Glucocorticoids. 9 International Meeting Updates in Neuro-Oncology Brain Tumor Symposium. Cortona, Italy. July 2, 2010.
- 46. Guest Lecturer. Paradigms in the Treatment of Brain Tumors. A Southern New England Rehabilitation Center. Warwick, RI. October 8, 2010.
- 47. Guest Lecturer. T-Cell Immunotherapy Against Malignant Skull Based Tumors. Neuro-Oncology Conference at John Hopkins. Baltimore, MD. September 21, 2012.
- 48. Guest Lecturer. Chimeric "designer" T Cell Therapy against Malignant Brain Tumors: Novel Treatments and Delivery. Neuro-Oncology Conference at Cortona, Italy. July 2, 2015.
- 49. Guest Lecturer. Immunotherapy: From Terra Incognito to Terra Nova. Grand Rounds at Warren Alpert Medical School. Providence, RI. January 18, 2016.

GRANTS

Novel Treatments for Malignant Brain Tumors. NIH National Research Service Award CA-09574-12 (\$50,000). 1996-1997. Novel Treatments for Malignant Brain Tumors. NIH National Research Service Award CA-09574-13 (\$50,000). 1997-1998.

Roger Williams Medical Center Grant (\$50,000) 2006, 2007. 2008

Rhode Island Brain And Spine Tumor Foundation (\$50,000). 2010

Rhode Island Foundation (\$25,000). 2011

Sorrento Therapeutics, Corporate Grant (\$50,000). 2015

NINDS Exploratory/Developmental Projects in Translational Research (R21); National Institute of Neurological Disorders and Stroke, National Institute of Health, Department of Health and Human Services, USA

Chimeric anti-fibulin-3 reagents for targeted therapy of glioblastoma. 1R21NS091436-01 (04/01/2015 – 3/31/2017)

Engineered T cells against an extracellular matrix target for glioblastoma therapy. 1R21NS104381-01 (09/01/2017 – 08/31/2019)

Metabolic Reprogramming of CAR-T cells to Induce Robust Immunotherapy against Solid Tumors. 1-R21CA227589-01 (04/01/18 – 03/31/2020)

UNIVERSITY TEACHING ROLES

Brown University Lecturer in Brain Tumors for medical student course in Neuroscience.	2000, 2001, 2002, 2015, 2016
Neurosurgery Medical Student Proctor	1999 - 2005

HOSPITAL TEACHING ROLES

Anatomical Dissection Laboratory Director, RIH Neurosurgery Residency	2000 - 2005
Neurosurgery Lecturer	1999 - 2006
Journal Club Coordinator	2003 - 2006
Organ Procurement Ethical Coordinator, RIH	2000 - 2005