



CURRICULUM VITAE HENRY BREM, M.D.

Signature

DEMOGRAPHIC INFORMATION

Date

Current Appointments:

Harvey Cushing Professor
Director, Department of Neurosurgery
Professor of Neurosurgery, Ophthalmology, Oncology and Biomedical Engineering
Neurosurgeon-in-Chief, Johns Hopkins Medical Institutions
Director, Hunterian Neurosurgical Research Center
Director, Neurosurgery Pain Research Institute at Johns Hopkins

Personal Data:

CLINICAL AND ADMINISTRATIVE OFFICE:

Johns Hopkins Hospital
1800 Orleans St. / Zayed 6-6115
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RESEARCH OFFICE

Johns Hopkins University School of Medicine
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Medical Licensure:

Maryland: D0024362 Exp. 9/30/2024

Washington, DC: MD041896 Exp. 12/31/2024

Florida: ME138934 Exp. 1/31/2025

Approved to conduct telemedicine for patients of Pennsylvania, New Jersey, and West Virginia

NPI: 1710944269

MD CDS: M22634 Exp. 4/30/2024

DEA Controlled Substance: AB8953110 Exp. 7/31/2025

Education and Training:

THESES: “Mechanism of selected carcinogen-DNA interactions”
 Biology Honor Thesis, New York University, June 1973.
 “Control of neovascularization”
 Honor Thesis, Harvard Medical School, 1978.

A.B. 1970 - 1973 New York University, (Cum Laude)
 1973 - 1974 Harvard University, Graduate School of Arts and Sciences
 Department of Biological Chemistry,

M.D.	1974 - 1978	Harvard Medical School (Cum Laude)
	1978 - 1979	Peter Bent Brigham Hospital, General Surgery Resident
	1979 - 1980	Johns Hopkins Hospital, Neurosurgery and Ophthalmology, Fellow
	1979 - 1984	Neurological Institute of New York, Columbia College of Physicians and Surgeons, Neurosurgery Residency
	1999, Feb.	Harvard School of Public Health: Program for Chiefs of Clinical Service

Professional Experience:

Research Assistant (Cardiopulmonary Lab), New York University Medical School	1967 - 1970
Pre-Doctoral Fellow, Microbiology Department, Columbia College of Physician and Surgeons	1971 - 1972
Pre-Doctoral Fellow, Surgery Department, Children's Hospital Medical Center, Boston, MA.	1972 - 1978
Consultant, Wilmer Institute, Johns Hopkins Hospital	1975 - 1979
Fellow (Clinical Surgery), Harvard University	1978 - 1979
Fellow (Neurosurgery & Ophthalmology), Johns Hopkins University	1979 - 1980
Staff Associate (Neurosurgery), Columbia University	1983 - 1984
Assistant Professor of Neurosurgery, Johns Hopkins University	1984 - 1988
Assistant Professor of Oncology, Johns Hopkins University	1984 - 1989
Director, Neurosurgical Oncology, Johns Hopkins Hospital	1984 - 2000
Joint Appointment in Ophthalmology, Johns Hopkins University	1984 -
Associate Professor of Neurosurgery, Johns Hopkins University.	1988 - 1993
Associate Professor of Oncology, Johns Hopkins University	1989 - 1993
Director, Hunterian Neurosurgical Research Center	1991 -
Professor, Neurosurgery and Oncology, Johns Hopkins University	1993 -
Vice Chairman, Dept of Neurosurgery, Johns Hopkins University	1995 - 2000
Harvey Cushing Professor	2000 -
Director, Department of Neurosurgery, Johns Hopkins University	2000 -
Co-Functional Unit Director, Clinical Neurosciences, Johns Hopkins Hospital	2000 -
Neurosurgeon-in-Chief, Johns Hopkins Medical Institutions	2000 -
Professor, Biomedical Engineering, Johns Hopkins University	2010 -
Director, Neurosurgery Pain Institute at Johns Hopkins	2011 - 2013
Henry Brem Professor	2014 -

RESEARCH ACTIVITIESPeer-Reviewed Articles:

1. **Brem H**, Coward JE, Rosenkranz HS. 1,2-dibromoethane--effect on the metabolism and ultrastructure of Escherichia coli. *Biochem.Pharmacol.* 1974; 23(16): 2345-2347. PMID 4605455.
2. **Brem H**, Stein AB, Rosenkranz HS. The mutagenicity and DNA-modifying effect of haloalkanes. *Cancer Res.* 1974; 34(10): 2576-2579. PMID 4607208.
3. **Brem H** and Folkman J. Inhibition of tumor angiogenesis mediated by cartilage. *J.Exp.Med.* 1975; 141(2): 427-439. PMID 1113064. PMC2190537.
4. Langer R, **Brem H**, Falterman K, Klein M, Folkman J. Isolations of a cartilage factor that inhibits tumor neovascularization. *Science*. 1976; 193(4247): 70-72. PMID 935859.
5. Brem S, **Brem H**, Folkman J, Finkelstein D, Patz A. Prolonged tumor dormancy by prevention of neovascularization in the vitreous. *Cancer Res.* 1976; 36(8): 2807-2812. PMID 1277191.
6. Preis I, Langer R, **Brem H**, Folkman J. Inhibition of neovascularization by an extract derived from vitreous. *Am.J.Ophthalmol.* 1977; 84(3): 323-328. PMID 900228.
7. **Brem H**, Thompson D, Long D, Patz A. Human brain tumors: Differences in ability to stimulate angiogenesis. *Surgical Forum*, 1980; 31, 471-473.

8. Langer R, **Brem H**, Tapper D. Biocompatibility of polymeric delivery systems for macromolecules. *J.Biomed.Mater.Res.* 1981; 15(2): 267-277. PMID 7348718.
9. Friedman JH, **Brem H**, Mayeux R. Global aphasia in multiple sclerosis. *Ann.Neurol.* 1983; 13(2): 222-223. PMID 6830195.
10. **Brem H**, Patz J, and Tapper D. Detection of human central nervous system tumors: Use of migration stimulating activity of the cerebrospinal fluid. *Surgical Forum.* 1983; 34:532-534.
11. **Brem H** and Stein BMS. Posterior surgical approach to the third ventricle and pineal region. *Contemporary Neurosurgery.* 1985; 7:1-6.
12. Zinreich SJ, Wang H, Epstein JI, Kim WS, **Brem H**, Anderson JH, Ahn HS, Rosenbaum AE. Carotid bifurcation imaging model for more accurately comparing imaging techniques. *Acta Radiol.Suppl.* 1986; 36924-28. PMID 2980462.
13. Robey SS, Olson JL, **Brem H**, Epstein JI. Posterior fossa neuroblastoma occurring in an elderly man. *Hum.Pathol.* 1988; 19(3): 365-367. PMID 3346012.
14. Steen RG, Tamargo RJ, McGovern KA, Rajan SS, **Brem H**, Wehrle JP, Glickson JD. In vivo 31P nuclear magnetic resonance spectroscopy of subcutaneous 9L gliosarcoma: effects of tumor growth and treatment with 1,3-bis(2-chloroethyl)-1-nitrosourea on tumor bioenergetics and histology. *Cancer Res.* 1988; 48(3): 676-681. PMID 3335030.
15. Tamargo RJ, Epstein JI, **Brem H**. Heterotransplantation of malignant human gliomas in neonatal rats. *J.Neurosurg.* 1988; 69(6): 928-933. PMID 3193198.
16. Tamargo RJ, Epstein JI, Reinhard CS, Chasin M, **Brem H**. Brain biocompatibility of a biodegradable, controlled-release polymer in rats. *J.Biomed.Mater.Res.* 1989; 23(2): 253-266. PMID 2708412.
17. **Brem H**, Kader A, Epstein JI, Tamargo RJ, Domb A, Langer R, Leong KW. Biocompatibility of a biodegradable, controlled-release polymer in the rabbit brain. *Sel.Cancer Ther.* 1989; 5(2): 55-65. PMID 2772427.
18. Yang MB, Tamargo RJ, **Brem H**. Controlled delivery of 1,3-bis(2-chloroethyl)-1-nitrosourea from ethylene-vinyl acetate copolymer. *Cancer Res.* 1989; 49(18): 5103-5107. PMID 2766281.
19. Salibi SS, Nauta HJ, **Brem H**, Epstein JI, Cho KR. Lipomeningioma: report of three cases and review of the literature. *Neurosurgery.* 1989; 25(1): 122-126. PMID 2666878.
20. Langer R, **Brem H**, Langer LF. New directions in CNS drug delivery. *Neurobiol.Aging.* 1989; 10(5): 642-4; discussion 648-50. PMID 2812246.
21. Steen RG, Tamargo RJ, **Brem H**, Glickson JD, Wehrle JP. In vivo 31P nuclear magnetic resonance spectroscopy of rat 9L gliosarcoma treated with BCNU: dose response of spectral changes. *Magn.Reson.Med.* 1989; 11(2): 258-266. PMID 2779416.
22. Levy AP, Tamargo R, **Brem H**, Nathans D. An endothelial cell growth factor from the mouse neuroblastoma cell line NB41. *Growth Factors.* 1989; 2(1): 9-19. PMID 2483948.
23. Carson BS and **Brem H**. Neurological surgery. *JAMA.* 1990; 263(19): 2658-2659. PMID 2329661.
24. **Brem H**. Modern treatment of brain tumors. *Md.Med.J.* 1990; 39(4): 351-354. PMID 2333021.
25. **Brem H**. Controlled-release polymer systems for drug delivery to the brain. *Polymer Preprints.* 1990; 31:229.
26. Tamargo RJ, Leong KW, **Brem H**. Growth inhibition of the 9L glioma using polymers to release heparin and cortisone acetate. *J.Neurooncol.* 1990; 9(2): 131-138. PMID 1702149.
27. Guerin C, Laterra J, Hruban RH, **Brem H**, Drewes LR, Goldstein GW. The glucose transporter and blood-brain barrier of human brain tumors. *Ann.Neurol.* 1990; 28(6): 758-765. PMID 2178329.
28. Sills AK, Tamargo RJ, **Brem H**. Reduction in peritumoral brain edema by an intracranial polymer implant. *Surgical Forum.* 1990; 41:516-518.
29. **Brem H**. Polymers to treat brain tumors. *Biomaterials.* 1990; 11(9): 699-701. PMID 2090306.
30. Chasin M, Hollenbeck G, **Brem H**, Grossman S, Colvin OM, Langer R. Interstitial drug therapy for brain tumors: A case study. *Drug Development and Industrial Pharmacy.* 1990; 16(18):2579-2594.
31. Langer LF, **Brem H**, and Langer R. New technologies for fighting brain disease. *Technology Review.* 1991; Feb/Mar:63-71.
32. Tamargo RJ, Bok RA, **Brem H**. Angiogenesis inhibition by minocycline. *Cancer Res.* 1991; 51(2): 672-675. PMID 1702361.
33. Dugan JD,Jr, Lawton MT, Glaser B, **Brem H**. A new technique for explantation and in vitro cultivation of chicken embryos. *Anat.Rec.* 1991; 229(1): 125-128. PMID 1996778.

34. **Brem H**, Mahaley MS,Jr, Vick NA, Black KL, Schold SC,Jr, Burger PC, Friedman AH, Cricic IS, Eller TW, Cozzens JW. Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas. *J.Neurosurg.* 1991; 74(3): 441-446. PMID 1993909.
35. Capito PR, Wang H, **Brem H**, Ahn HS, Bryan RN. Magnetic resonance imaging diagnosis of an intracranial metastasis of adenocarcinoma of the prostate: case report. *Md.Med.J.* 1991; 40(2): 113-115. PMID 1997794.
36. Olivi A, Donehower RC, Mann RB, **Brem H**. Solitary, isolated metastasis from Ewing's sarcoma to the brain: case report. *Surg.Neurol.* 1991; 35(3): 239-243. PMID 1996454.
37. Tamargo RJ, Sills AK,Jr, Reinhard CS, Pinn ML, Long DM, **Brem H**. Interstitial delivery of dexamethasone in the brain for the reduction of peritumoral edema. *J.Neurosurg.* 1991; 74(6): 956-961. PMID 2033457.
38. Reinhard CS, Radomsky M, Saltzman M, **Brem H**. Polymeric controlled release of dexamethasone in normal rat brain. *J Controlled Release.* 1991; 16(3):331-340.
39. Madrid Y, Langer LF, **Brem H**, Langer R. New directions in the delivery of drugs and other substances to the central nervous system. *Adv.Pharmacol.* 1991; 22299-324. PMID 1958504.
40. Nabors MW, Griffin CA, Zehnbauer BA, Hruban RH, Phillips PC, Grossman SA, **Brem H**, Colvin OM. Multidrug resistance gene (MDR1) expression in human brain tumors. *J.Neurosurg.* 1991; 75(6): 941-946. PMID 1682428.
41. Domb A, Bogdansky S, Olivi A, Judy K, Dureza C, Lenartz D, Pinn ML, Colvin OM, **Brem H**. Controlled delivery of water soluble and hydrolytically unstable anti-cancer drugs for polymeric implants. *Polymer Preprints.* 1991; 32(2):219-220.
42. Weingart J, Olivi A, and **Brem H**. Supratentorial low-grade astrocytomas in adults. *Neurosurgery Quarterly* 1991; 1:141-159.
43. Guerin C, Laterra J, Drewes LR, **Brem H**, Goldstein GW. Vascular expression of glucose transporter in experimental brain neoplasms. *Am.J.Pathol.* 1992; 140(2): 417-425. PMID 1739134. PMC1886421.
44. Guerin C, Wolff JE, Laterra J, Drewes LR, **Brem H**, Goldstein GW. Vascular differentiation and glucose transporter expression in rat gliomas: effects of steroids. *Ann.Neurol.* 1992; 31(5): 481-487. PMID 1596083.
45. **Brem H**, Domb A, Lenartz D, Dureza C, Olivi A, Epstein JI. Brain biocompatibility of a biodegradable controlled release polymer consisting of anhydride copolymer of fatty acid dimer and sebacic acid. *J of Controlled Release.* 1992; 19:325-330.
46. Grossman SA, Reinhard C, Colvin OM, Chasin M, Brundrett R, Tamargo RJ, **Brem H**. The intracerebral distribution of BCNU delivered by surgically implanted biodegradable polymers. *J.Neurosurg.* 1992; 76(4): 640-647. PMID 1545259.
47. Griffin CA, Long PP, Carson BS, **Brem H**. Chromosome abnormalities in low-grade central nervous system tumors. *Cancer Genet.Cytogenet.* 1992; 60(1): 67-73. PMID 1591709.
48. Phillips SD, Corio RL, **Brem H**, Mattox D. Ameloblastoma of the mandible with intracranial metastasis. A case study. *Arch.Otolaryngol.Head.Neck.Surg.* 1992; 118(8): 861-863. PMID 1642839.
49. **Brem H**. Controlled release polymers to deliver drugs to the brain. *Polym. Mater. Sci. Eng.* 1992 ; 66:85.
50. Guerin C, Laterra J, Masnyk T, Golub LM, **Brem H**. Selective endothelial growth inhibition by tetracyclines that inhibit collagenase. *Biochem.Biophys.Res.Commun.* 1992; 188(2): 740-745. PMID 1445318.
51. Buahin KG, Judy KD, Hartke C, Maniar M, Colvin OM, **Brem H**. Controlled release of 4-hydroperoxy cyclophosphamide from the fatty acid dimer-sebacic acid copolymer. *Polymers For Advanced Technologies.* 1992; 3(6):311-316.
52. Tamargo RJ, **Brem H**. Drug delivery to the central nervous system: A review. *Neurosurgery Quarterly.* 1992; 2(4):259-279.
53. Weingart J and **Brem H**. Biology and therapy of glial tumors. *Curr.Opin.Neurol.Neurosurg.* 1992; 5(6): 808-812. PMID 1467571.
54. Tamargo RJ, Myseros JS, Epstein JI, Yang MB, Chasin M, **Brem H**. Interstitial chemotherapy of the 9L gliosarcoma: controlled release polymers for drug delivery in the brain. *Cancer Res.* 1993; 53(2): 329-333. PMID 8417826.
55. Weingart J, **Brem H**. Current management of high-grade gliomas. *Contemporary Oncology.* 1993 3(2):19-31.

56. **Brem H**, Walter KA, Langer R. Polymers as controlled drug delivery devices for the treatment of malignant brain tumors. 1993; *Eur. J. Pharm. & Biopharm.* 39(1):2-7.
57. Olivi A, Gilbert M, Duncan KL, Corden B, Lenartz D, **Brem H**. Direct delivery of platinum-based antineoplastics to the central nervous system: a toxicity and ultrastructural study. *Cancer Chemother.Pharmacol.* 1993; 31(6): 449-454. PMID 8453683.
58. Wolff JE, Guerin C, Laterra J, Bressler J, Indurti RR, **Brem H**, Goldstein GW. Dexamethasone reduces vascular density and plasminogen activator activity in 9L rat brain tumors. *Brain Res.* 1993; 604(1-2): 79-85. PMID 7681348.
59. Zinreich SJ, Tebo SA, Long DM, **Brem H**, Mattox DE, Loury ME, vander Kolk CA, Koch WM, Kennedy DW, Bryan RN. Frameless stereotaxic integration of CT imaging data: accuracy and initial applications. *Radiology*. 1993; 188(3): 735-742. PMID 8351341.
60. Olivi A, Kim KD, Benedetti L, Epstein JI, Pinn ML, Callegaro L, and **Brem H**. Ocular and brain biocompatibility of polymeric delivery materials prepared from ester derivatives of hyaluronic acid. *J of Clinical Materials*. 1993; 13:163-168.
61. **Brem H**, Tamargo RJ, Olivi A, Pinn M, Weingart JD, Wharam M, Epstein JI. Biodegradable polymers for controlled delivery of chemotherapy with and without radiation therapy in the monkey brain. *J.Neurosurg.* 1994; 80(2): 283-290. PMID 8283268.
62. Phillips PC, Levow C, Catterall M, Colvin OM, Pastan I, **Brem H**. Transforming growth factor-alpha-Pseudomonas exotoxin fusion protein (TGF-alpha-PE38) treatment of subcutaneous and intracranial human glioma and medulloblastoma xenografts in athymic mice. *Cancer Res.* 1994; 54(4): 1008-1015. PMID 8313355.
63. Wu MP, Tamada JA, **Brem H**, Langer R. In vivo versus in vitro degradation of controlled release polymers for intracranial surgical therapy. *J.Biomed.Mater.Res.* 1994; 28(3): 387-395. PMID 8077254.
64. Cahan MA, Walter KA, Colvin OM, **Brem H**. Cytotoxicity of taxol in vitro against human and rat malignant brain tumors. *Cancer Chemother.Pharmacol.* 1994; 33(5): 441-444. PMID 7905792.
65. Walter KA, Cahan MA, Gur A, Tyler B, Hilton J, Colvin OM, Burger PC, Domb A, **Brem H**. Interstitial taxol delivered from a biodegradable polymer implant against experimental malignant glioma. *Cancer Res.* 1994; 54(8): 2207-2212. PMID 7909720.
66. Arosarena O, Guerin C, **Brem H**, Laterra J. Endothelial differentiation in intracerebral and subcutaneous experimental gliomas. *Brain Res.* 1994; 640(1-2): 98-104. PMID 8004469.
67. Dang W, Colvin OM, **Brem H**, Saltzman WM. Covalent coupling of methotrexate to dextran enhances the penetration of cytotoxicity into a tissue-like matrix. *Cancer Res.* 1994; 54(7): 1729-1735. PMID 7511049.
68. Tapper D, Cahan MA, **Brem H**. Detection of biological activity in the cerebrospinal fluid of patients with central nervous system tumors. *J.Neurooncol.* 1994; 19(1): 17-23. PMID 7815101.
69. Sipos EP, Tamargo RJ, Weingart JD, **Brem H**. Inhibition of tumor angiogenesis. *Ann.N.Y.Acad.Sci.* 1994; 732263-272. PMID 7526758.
70. Griffin CA, Hruban RH, Long PP, Miller N, Volz P, Carson B, **Brem H**. Chromosome abnormalities in meningeal neoplasms: do they correlate with histology? *Cancer Genet.Cytogenet.* 1994; 78(1): 46-52. PMID 7987805.
71. Judy KD, Olivi A, Buahin KG, Domb A, Epstein JI, Colvin OM, **Brem H**. Effectiveness of controlled release of a cyclophosphamide derivative with polymers against rat gliomas. *J.Neurosurg.* 1995; 82(3): 481-486. PMID 7861228.
72. Weingart JD, Sipos EP, **Brem H**. The role of minocycline in the treatment of intracranial 9L glioma. *J.Neurosurg.* 1995; 82(4): 635-640. PMID 7897527.
73. **Brem H**, Piantadosi S, Burger PC, Walker M, Selker R, Vick NA, Black K, Sisti M, Brem S, Mohr G. Placebo-controlled trial of safety and efficacy of intraoperative controlled delivery by biodegradable polymers of chemotherapy for recurrent gliomas. The Polymer-brain Tumor Treatment Group. *Lancet.* 1995; 345(8956): 1008-1012. PMID 7723496.
74. Pressman EK, Zeidman SM, Reddy UM, Epstein JI, **Brem H**. Differentiating lymphocytic adenohypophysitis from pituitary adenoma in the peripartum patient. *J.Reprod.Med.* 1995; 40(4): 251-259. PMID 7623353.
75. Weingart JD, Thompson RC, Tyler B, Colvin OM, **Brem H**. Local delivery of the topoisomerase I inhibitor camptothecin sodium prolongs survival in the rat intracranial 9L gliosarcoma model. *Int.J.Cancer.* 1995; 62(5): 605-609. PMID 7665233.

76. Sipos EP and **Brem H**. New delivery systems for brain tumor therapy. *Neurol.Clin.* 1995; 13(4): 813-825. PMID 8583998.
77. Walter KA, Tamargo RJ, Olivi A, Burger PC, **Brem H**. Intratumoral chemotherapy. *Neurosurgery*. 1995; 37(6): 1128-1145. PMID 8584154.
78. Buahin KG and **Brem H**. Interstitial chemotherapy of experimental brain tumors: comparison of intratumoral injection versus polymeric controlled release. *J.Neurooncol.* 1995; 26(2): 103-110. PMID 8787852.
79. **Brem H**, Ewend MG, Piantadosi S, Greenhoot J, Burger PC, Sisti M. The safety of interstitial chemotherapy with BCNU-loaded polymer followed by radiation therapy in the treatment of newly diagnosed malignant gliomas: phase I trial. *J.Neurooncol.* 1995; 26(2): 111-123. PMID 8787853.
80. **Brem H** and Langer R. Polymer-based drug delivery to the brain. *Scientific American: Science & Medicine*. 1996; Vol 3:52-61.
81. Fung LK, Shin M, Tyler B, **Brem H**, Saltzman WM. Chemotherapeutic drugs released from polymers: distribution of 1,3-bis(2-chloroethyl)-1-nitrosourea in the rat brain. *Pharm.Res.* 1996; 13(5): 671-682. PMID 8860421.
82. Dang W, Daviau T, **Brem H**. Morphological characterization of polyanhydride biodegradable implant Gliadel® during in vitro and in vivo erosion using scanning electron microscopy. *Pharmaceutical Research* 1996; 13(5):683-691. PMID 8860422.
83. Sipos EP, Tebo SA, Zinreich SJ, Long DM, **Brem H**. In vivo accuracy testing and clinical experience with the ISG Viewing Wand. *Neurosurgery*. 1996; 39(1): 194-202; discussion 202-4. PMID 8805161.
84. Weingart JD and **Brem H**. Carmustine implants: Potential in the treatment of brain tumours. *CNS Drugs*. 1996; (4):263-269.
85. Ewend MG, Anderson R, Tabassi K, Tyler BM, Babel KM, Williams JA, **Brem H**. Local delivery of BCNU from biodegradable polymer is superior to radiation therapy in treating intracranial melanoma metastases. *Surgical Forum*. 1996; 47: 564-566.
86. Ewend MG, Carey LA, **Brem H**. Treatment of melanoma metastases in the brain. *Semin.Surg.Oncol.* 1996; 12(6): 429-435. PMID 8914207.
87. Ewend MG, Williams JA, Tabassi K, Tyler BM, Babel KM, Anderson RC, Pinn ML, Brat DJ, **Brem H**. Local delivery of chemotherapy and concurrent external beam radiotherapy prolongs survival in metastatic brain tumor models. *Cancer Res.* 1996; 56(22): 5217-5223. PMID 8912860.
88. Olivi A, Ewend MG, Utsuki T, Tyler B, Domb AJ, Brat DJ, **Brem H**. Interstitial delivery of carboplatin via biodegradable polymers is effective against experimental glioma in the rat. *Cancer Chemother.Pharmacol.* 1996; 39(1-2): 90-96. PMID 8995504.
89. Thompson RC, Pardoll DM, Jaffee EM, Ewend MG, Thomas MC, Tyler BM, **Brem H**. Systemic and local paracrine cytokine therapies using transduced tumor cells are synergistic in treating intracranial tumors. *J.Immunother.Emphasis.Tumor.Immunol.* 1996; 19(6): 405-413. PMID 9041459.
90. Utsuki T, **Brem H**, Pitha J, Loftsson T, Kristmundsdottir T, Tyler BM, Olivi A. Potentiation of anticancer effects of microencapsulated carboplatin by hydroxypropyl \square -cyclodextrin. *Journal of Controlled Release*. 0996; 40:251-260.
91. Sipos EP, Tyler B, Piantadosi S, Burger PC, **Brem H**. Optimizing interstitial delivery of BCNU from controlled release polymers for the treatment of brain tumors. *Cancer Chemother.Pharmacol.* 1997; 39(5): 383-389. PMID 9054951.
92. Williams JA, Dillehay LE, Tabassi K, Sipos E, Fahlman C, **Brem H**. Implantable biodegradable polymers for IUDR radiosensitization of experimental human malignant glioma. *J.Neurooncol.* 1997; 32(3): 181-192. PMID 9049879.
93. Sampath P, Holliday MJ, **Brem H**, Niparko JK, Long DM. Facial nerve injury in acoustic neuroma (vestibular schwannoma) surgery: etiology and prevention. *J.Neurosurg.* 1997; 87(1): 60-66. PMID 9202266.
94. Kleinberg L, Slick T, Enger C, Grossman S, **Brem H**, Wharam MD,Jr. Short course radiotherapy is an appropriate option for most malignant glioma patients. *Int.J.Radiat.Oncol.Biol.Phys.* 1997; 38(1): 31-36. PMID 9212001.
95. Perry JR, DeAngelis LM, Schold SC,Jr, Burger PC, **Brem H**, Brown MT, Curran WJ, Scott CB, Prados MD, Kaplan R, Cairncross JG. Challenges in the design and conduct of phase III brain tumor therapy trials. *Neurology*. 1997; 49(4): 912-917. PMID 9339667.

96. Bohan E, **Brem H**. Treatment of brain tumors by local delivery of chemotherapy via biodegradable polymers. *Hospital Pharmacists Report*. 1997; 12:12-18.
97. Fung LK, Ewend MG, Sills A, Sipos EP, Thompson R, Watts M, Colvin OM, **Brem H**, Saltzman WM. Pharmacokinetics of interstitial delivery of carmustine, 4-hydroperoxycyclophosphamide, and paclitaxel from a biodegradable polymer implant in the monkey brain. *Cancer Res*. 1998; 58(4): 672-684. PMID 9485020.
98. Cardinale RM, Dillehay LE, Williams JA, Tabassi K, **Brem H**, Lee DJ. Effect of interstitial and/or systemic delivery of tirapazamine on the radiosensitivity of human glioblastoma multiforme in nude mice. *Radiat.Oncol.Investig*. 1998; 6(2): 63-70. PMID 9572682.
99. Grossman SA, Fisher JD, Piantadosi S, **Brem H**. The New Approaches to Brain Tumor Therapy (NABTT) CNS Consortium: Organization, Objectives, and Activities. *Cancer Control*. 1998; 5(2): 107-114. PMID 10761021.
100. Sampath P and **Brem H**. Implantable Slow-Release Chemotherapeutic Polymers for the Treatment of Malignant Brain Tumors. *Cancer Control*. 1998; 5(2): 130-137. PMID 10761024.
101. Wiranowska M, Ransohoff J, Weingart JD, Phelps C, Phuphanich S, **Brem H**. Interferon-containing controlled-release polymers for localized cerebral immunotherapy. *J.Interferon Cytokine Res*. 1998; 18(6): 377-385. PMID 9660244.
102. Sills AK,Jr, Williams JI, Tyler BM, Epstein DS, Sipos EP, Davis JD, McLane MP, Pitchford S, Cheshire K, Gannon FH, Kinney WA, Chao TL, Donowitz M, Laterra J, Zasloff M, **Brem H**. Squalamine inhibits angiogenesis and solid tumor growth in vivo and perturbs embryonic vasculature. *Cancer Res*. 1998; 58(13): 2784-2792. PMID 9661892.
103. Posner GH, Lee JK, Wang Q, Peleg S, Burke M, **Brem H**, Dolan P, Kensler TW. Noncalcemic, antiproliferative, transcriptionally active, 24-fluorinated hybrid analogues of the hormone 1alpha, 25-dihydroxyvitamin D3. Synthesis and preliminary biological evaluation. *J.Med.Chem*. 1998; 41(16): 3008-3014. PMID 9685240.
104. Ewend MG, Sampath P, Williams JA, Tyler BM, **Brem H**. Local delivery of chemotherapy prolongs survival in experimental brain metastases from breast carcinoma. *Neurosurgery*. 1998; 43(5): 1185-1193. PMID 9802862.
105. Sampath P, Rhines LD, Holliday MJ, **Brem H**, Long DM. Late-onset facial nerve degeneration after vestibular schwannoma surgery: incidence, putative mechanisms, and prevention. *Neurosurg.Focus*. 1998; 5(3): e6. PMID 17112221.
106. Chou D, Sampath P, **Brem H**. Hemorrhagic vestibular schwannoma: an unusual clinical entity. Case report. *Neurosurg.Focus*. 1998; 5(3): e9. PMID 17112224.
107. Williams JA, Yuan X, Dillehay LE, Shastri VR, **Brem H**, Williams JR. Synthetic, implantable polymers for local delivery of IUdR to experimental human malignant glioma. *Int.J.Radiat.Oncol.Biol.Phys*. 1998; 42(3): 631-639. PMID 9806525.
108. Williams J, Enger C, Wharam M, Tsai D, **Brem H**. Stereotactic radiosurgery for brain metastases: comparison of lung carcinoma vs. non-lung tumors. *J.Neurooncol*. 1998; 37(1): 79-85. PMID 9525842.
109. Sampath P, Hanes J, DiMeco F, Tyler BM, Brat D, Pardoll DM, **Brem H**. Paracrine immunotherapy with interleukin-2 and local chemotherapy is synergistic in the treatment of experimental brain tumors. *Cancer Res*. 1999; 59(9): 2107-2114. PMID 10232596.
110. **Brem H** and Lawson HC. The development of new brain tumor therapy utilizing the local and sustained delivery of chemotherapeutic agents from biodegradable polymers. *Cancer*. 1999; 86(2): 197-199. PMID 10421254.
111. Posner GH, Wang Q, Han G, Lee JK, Crawford K, Zand S, **Brem H**, Peleg S, Dolan P, Kensler TW. Conceptually new sulfone analogues of the hormone 1alpha, 25-dihydroxyvitamin D(3): synthesis and preliminary biological evaluation. *J.Med.Chem*. 1999; 42(18): 3425-3435. PMID 10479276.
112. Suh KW, Piantadosi S, Yazdi HA, Pardoll DM, **Brem H**, Choti MA. Treatment of liver metastases from colon carcinoma with autologous tumor vaccine expressing granulocyte-macrophage colony-stimulating factor. *J.Surg.Oncol*. 1999; 72(4): 218-224. PMID 10589037.
113. Sampath P, Long DM, **Brem H**. The Hunterian Neurosurgical Laboratory: the first 100 years of neurosurgical research. *Neurosurgery*. 2000; 46(1): 184-94; discussion 194-5. PMID 10626949.
114. DiMeco F, Rhines LD, Hanes J, Tyler BM, Brat D, Torchiana E, Guarneri M, Colombo MP, Pardoll DM, Finocchiaro G, **Brem H**, Olivi A. Paracrine delivery of IL-12 against intracranial 9L gliosarcoma in rats. *J.Neurosurg*. 2000; 92(3): 419-427. PMID 10701528.

115. Haroun RI, Lee KW, Carson BS, **Brem H**. Primary tumors of the choroids plexus. *Contemporary Neurosurgery*. 2000; 2(3).
116. Haroun RI and **Brem H**. Local drug delivery. *Curr.Opin.Oncol.* 2000; 12(3): 187-193. PMID 10841189.
117. Klink DF, Sampath P, Miller NR, **Brem H**, Long DM. Long-term visual outcome after nonradical microsurgery patients with parasellar and cavernous sinus meningiomas. *Neurosurgery*. 2000; 47(1): 24-31; discussion 31-2. PMID 10917343.
118. Ewend MG, Thompson RC, Anderson R, Sills AK, Staveley-O'Carroll K, Tyler BM, Hanes J, Brat D, Thomas M, Jaffee EM, Pardoll DM, **Brem H**. Intracranial paracrine interleukin-2 therapy stimulates prolonged antitumor immunity that extends outside the central nervous system. *J.Immunother.* 2000; 23(4): 438-448. PMID 10916753.
119. Rhines LD, Sampath P, Dolan ME, Tyler BM, **Brem H**, Weingart J. O6-benzylguanine potentiates the antitumor effect of locally delivered carmustine against an intracranial rat glioma. *Cancer Res.* 2000; 60(22): 6307-6310. PMID 11103789.
120. Sipos EP and **Brem H**. Local anti-angiogenic brain tumor therapies. *J.Neurooncol.* 2000; 50(1-2): 181-188. PMID 11245278.
121. Olivi A, DiMeco F, Bohan E, **Brem H**. Developing new methods for the treatment of malignant brain tumours: local delivery of anti-neoplastic agents using biodegradable polymers. *Forum.(Genova)*. 2000; 10(2): 152-165. PMID 10875976.
122. Sipos EP, Witham TF, Ratan R, Burger PC, Baraban J, Li KW, Piantadosi S, **Brem H**. L-buthionine sulfoximine potentiates the antitumor effect of 4-hydroperoxycyclophosphamide when administered locally in a rat glioma model. *Neurosurgery*. 2001; 48(2): 392-400. PMID 11220384.
123. Conway JE, Chou D, Clatterbuck RE, **Brem H**, Long DM, Rigamonti D. Hemangioblastomas of the central nervous system in von Hippel-Lindau syndrome and sporadic disease. *Neurosurgery*. 2001; 48(1): 55-62; discussion 62-3. PMID 11152361.
124. Lesniak MS, Sampath P, DiMeco F, Viglione MP, Tyler BM, Pardoll DM, **Brem H**. Comparative analysis of paracrine immunotherapy in experimental brain tumors. *Neurosurg.Focus*. 2000; 9(6): e4. PMID 16817687.
125. Lesniak MS, Langer R, **Brem H**. Drug delivery to tumors of the central nervous system. *Curr.Neurol.Neurosci.Rep.* 2001; 1(3): 210-216. PMID 11898520.
126. White MC, Burke MD, Peleg S, **Brem H**, Posner GH. Conformationally restricted hybrid analogues of the hormone 1 alpha,25-dihydroxyvitamin D(3): design, synthesis, and biological evaluation. *Bioorg.Med.Chem.* 2001; 9(7): 1691-1699. PMID 11425569.
127. **Brem H** and Gabikian P. Biodegradable polymer implants to treat brain tumors. *J.Control.Release*. 2001; 74(1-3): 63-67. PMID 11489483.
128. Hanes J, Sills A, Zhao Z, Suh KW, Tyler B, DiMeco F, Brat DJ, Choti MA, Leong KW, Pardoll DM, **Brem H**. Controlled local delivery of interleukin-2 by biodegradable polymers protects animals from experimental brain tumors and liver tumors. *Pharm.Res.* 2001; 18(7): 899-906. PMID 11496947.
129. Rothstein JD and **Brem H**. Excitotoxic destruction facilitates brain tumor growth. *Nat.Med.* 2001; 7(9): 994-995. PMID 11533696.
130. Reavey-Cantwell JF, Haroun RI, Zahurak M, Clatterbuck RE, Parker RJ, Mehta R, Fruehauf JP, **Brem H**. The prognostic value of tumor markers in patients with glioblastoma multiforme: analysis of 32 patients and review of the literature. *J.Neurooncol.* 2001; 55(3): 195-204. PMID 11859975.
131. Freitag SK, Miller NR, **Brem H**. Recurrent ectopic craniopharyngioma. *Br.J.Neurosurg.* 2001; 15(6): 511-513. PMID 11814004.
132. Kaminski JM, Movsas B, King E, Yang C, Kronz JD, Alli PM, Williams J, **Brem H**. Metastatic meningioma to the lung with multiple pleural metastases. *Am.J.Clin.Oncol.* 2001; 24(6): 579-582. PMID 11801758.
133. Mori S, Kraut MA, Van Zul PC, Solaiyappa M, **Brem H**, Pomer M. Diffusion tensor imaging and fiber tracking of brain tumors. *Proceedings of the International Society of Magnetic Resonance in Medicine*. 2001; 9:507.
134. Freitag SK, Miller NR, Brem H. Recurrent ectopic craniopharyngioma. *Br J Neurosurg.* 2001 Dec;15(6):511-3. doi: 10.1080/02688690120097723. PMID: 11814004
135. Liu JM, Garonzik IM, Eberhart CG, Sampath P, **Brem H**. Ectopic recurrence of craniopharyngioma after an interhemispheric transcallosal approach: case report. *Neurosurgery*. 2002; 50(3): 639-44; discussion 644-5. PMID 11841735.

136. Storm PB, Moriarity JL, Tyler B, Burger PC, **Brem H**, Weingart J. Polymer delivery of camptothecin against 9L gliosarcoma: release, distribution, and efficacy. *J.Neurooncol.* 2002; 56(3): 209-217. PMID 12061726.
137. Haroun RI, Clatterbuck RE, Gibbons MC, Burger PC, Parker R, Fruehauf JP, **Brem H**. Extreme drug resistance in primary brain tumors: in vitro analysis of 64 resection specimens. *J.Neurooncol.* 2002; 58(2): 115-123. PMID 12164682.
138. Toung TJ, Tyler B, **Brem H**, Traystman RJ, Hurn PD, Bhardwaj A. Hypertonic saline ameliorates cerebral edema associated with experimental brain tumor. *J.Neurosurg.Anesthesiol.* 2002; 14(3): 187-193. PMID 12172290.
139. DiMeco F, Li KW, Tyler BM, Wolf AS, **Brem H**, Olivi A. Local delivery of mitoxantrone for the treatment of malignant brain tumors in rats. *J.Neurosurg.* 2002; 97(5): 1173-1178. PMID 12450040.
140. Wang PP, Frazier J, **Brem H**. Local drug delivery to the brain. *Adv.Drug Deliv.Rev.* 2002; 54(7): 987-1013. PMID 12384318.
141. Liu JM, Garonzik IM, Eberhart CG, Sampath P, Brem H. Ectopic recurrence of craniopharyngioma after an interhemispheric transcallosal approach: case report. *Neurosurgery.* 2002 Mar;50(3):639-44; discussion 644-5. doi: 10.1097/00006123-200203000-00041. PMID: 11841735 Review.
142. Lugassy C, Haroun RI, **Brem H**, Tyler BM, Jones RV, Fernandez PM, Patierno SR, Kleinman HK, Barnhill RL. Pericytic-like angiotropism of glioma and melanoma cells. *Am.J.Dermatopathol.* 2002; 24(6): 473-478. PMID 12454598.
143. 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. *J.Neurosurg.* 2003; 98(3): 570-577. PMID 12650430.
144. 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; 52(4): 872-9; discussion 879-80. PMID 12657184.
145. Long DM, Gordon T, Bowman H, Etzel A, Burleyson G, Betchen S, Garonzik IM, **Brem H**. Outcome and cost of craniotomy performed to treat tumors in regional academic referral centers. *Neurosurgery.* 2003; 52(5): 1056-63; discussion 1063-5. PMID 12699547.
146. Hammoud DA, Belden CJ, Ho AC, Dal Pan GJ, Herskovits EH, Hilt DC, **Brem H**, Pomper MG. The surgical bed after BCNU polymer wafer placement for recurrent glioma: serial assessment on CT and MR imaging. *AJR Am.J.Roentgenol.* 2003; 180(5): 1469-1475. PMID 12704070.
147. Legnani FG, Pradilla G, Wang PP, **Brem H**, Olivi A, Dimeco F. Local delivery of antineoplastic agents using biodegradable polymers for the treatment of malignant brain tumors. *Expert Rev.Neurother.* 2003; 3(4): 533-546. PMID 19810937.
148. Lesniak MS, Tyler BM, Pardoll DM, **Brem H**. Gene therapy for experimental brain tumors using a xenogenic cell line engineered to secrete hIL-2. *J.Neurooncol.* 2003; 64(1-2): 155-160. PMID 12952296.
149. Chang SM, Parney IF, McDermott M, Barker FG,2nd, Schmidt MH, Huang W, Laws ER,Jr, Lillehei KO, Bernstein M, **Brem H**, Sloan AE, Berger M, Glioma Outcomes Investigators. Perioperative complications and neurological outcomes of first and second craniotomies among patients enrolled in the Glioma Outcome Project. *J.Neurosurg.* 2003; 98(6): 1175-1181. PMID 12816260.
150. Laws ER, Parney IF, Huang W, Anderson F, Morris AM, Asher A, Lillehei KO, Bernstein M, **Brem H**, Sloan A, Berger MS, Chang S, Glioma Outcomes Investigators. Survival following surgery and prognostic factors for recently diagnosed malignant glioma: data from the Glioma Outcomes Project. *J.Neurosurg.* 2003; 99(3): 467-473. PMID 12959431.
151. Li KW, Dang W, Tyler BM, Troiano G, Tihan T, **Brem H**, Walter KA. Polilactofate microspheres for Paclitaxel delivery to central nervous system malignancies. *Clin.Cancer Res.* 2003; 9(9): 3441-3447. PMID 12960135.
152. Pradilla G, Azzam T, Wang PP, Domb AJ, Brem H. Gene therapy for malignant brain tumors. *Expert Rev Neurother.* 2003 Sep;3(5):685-701. doi: 10.1586/14737175.3.5.685. PMID: 19810968
153. Pradilla G, Azzam T, Wang PP, Domb AJ, **Brem H**. Gene therapy for malignant brain tumors. *Expert Rev.Neurother.* 2003; 3(5): 685-701. PMID 19810968.
154. **Brem H** and Amundson E. Preparing Hopkins medical students for a career in academic neurosurgery. *Surgery.* 2003; 134(3): 414-415. PMID 14555924.

155. Frazier JL, Wang PP, Case D, Tyler BM, Pradilla G, Weingart JD, **Brem H**. Local delivery of minocycline and systemic BCNU have synergistic activity in the treatment of intracranial glioma. *J.Neurooncol.* 2003; 64(3): 203-209. PMID 14558595.
156. Richards Grayson AC, Choi IS, Tyler BM, Wang PP, **Brem H**, Cima MJ, Langer R. Multi-pulse drug delivery from a resorbable polymeric microchip device. *Nat.Mater.* 2003; 2(11): 767-772. PMID 14619935.
157. Moses MA, **Brem H**, Langer R. Advancing the field of drug delivery: taking aim at cancer. *Cancer.Cell.* 2003; 4(5): 337-341. PMID 14667500.
158. Guerin C, Olivi A, Weingart JD, Lawson HC, **Brem H**. Recent advances in brain tumor therapy: local intracerebral drug delivery by polymers. *Invest.New Drugs.* 2004; 22(1): 27-37. PMID 14707492.
159. Komotor RJ, Burger PC, Carson BS, **Brem H**, Olivi A, Goldthwaite PT, Tihan T. Pilocytic and pilomyxoid hypothalamic/chiasmatic astrocytomas. *Neurosurgery.* 2004; 54(1): 72-9; discussion 79-80. PMID 14683543.
160. Samdani AF, Kuchner EB, Rhines L, Adamson DC, Lawson C, Tyler B, **Brem H**, Dawson VL, Dawson TM. Astroglia induce cytotoxic effects on brain tumors via a nitric oxide-dependent pathway both in vitro and in vivo. *Neurosurgery.* 2004; 54(5): 1231-7; discussion 1237-8. PMID 15113479.
161. Kleinberg LR, Weingart J, Burger P, Carson K, Grossman SA, Li K, Olivi A, Wharam MD, **Brem H**. Clinical course and pathologic findings after Gliadel and radiotherapy for newly diagnosed malignant glioma: implications for patient management. *Cancer Invest.* 2004; 22(1): 1-9. PMID 15069758.
162. Lesniak MS and **Brem H**. Targeted therapy for brain tumours. *Nat.Rev.Drug Discov.* 2004; 3(6): 499-508. PMID 15173839.
163. Basaria S, Westra WH, **Brem H**, Salvatori R. Metastatic renal cell carcinoma to the pituitary presenting with hyperprolactinemia. *J.Endocrinol.Invest.* 2004; 27(5): 471-474. PMID 15279082.
164. Storm PB, Renard VM, Moriarity JL, Tyler B, Wilentz RE, **Brem H**, Weingart JD. Systemic BCNU enhances the efficacy of local delivery of a topoisomerase I inhibitor against malignant glioma. *Cancer Chemother.Pharmacol.* 2004; 54(4): 361-367. PMID 15197484.
165. Lesniak MS, Gabikian P, Tyler BM, Pardoll DM, **Brem H**. Dexamethasone mediated inhibition of local IL-2 immunotherapy is dose dependent in experimental brain tumors. *J.Neurooncol.* 2004; 70(1): 23-28. PMID 15527103.
166. Moses MA, **Brem H**, Langer R. Novel delivery systems in cancer chemotherapy. *Sci & Med*, 9(5):264-273, 2003 [published July 2004].
167. Li Y, Shawgo RS, Tyler B, Henderson PT, Vogel JS, Rosenberg A, Storm PB, Langer R, **Brem H**, Cima MJ. In vivo release from a drug delivery MEMS device. *J.Control.Release.* 2004; 100(2): 211-219. PMID 15544869.
168. Chang SM, Parney IF, Huang W, Anderson FA,Jr, Asher AL, Bernstein M, Lillehei KO, **Brem H**, Berger MS, Laws ER, Glioma Outcomes Project Investigators. Patterns of care for adults with newly diagnosed malignant glioma. *JAMA.* 2005; 293(5): 557-564. PMID 15687310.
169. Koenig MA, Geocadin RG, Kulesza P, Olivi A, **Brem H**. Rhabdoid meningioma occurring in an unrelated resection cavity with leptomeningeal carcinomatosis. Case report. *J.Neurosurg.* 2005; 102(2): 371-375. PMID 15739568.
170. Mantha A, Legnani FG, Bagley CA, Gallia GL, Garonzik I, Pradilla G, Amundson E, Tyler BM, **Brem H**, Gokaslan ZL. A novel rat model for the study of intraosseous metastatic spine cancer. *J.Neurosurg.Spine.* 2005; 2(3): 303-307. PMID 15796355.
171. Raza SM, Pradilla G, Legnani FG, Thai QA, Olivi A, Weingart JD, **Brem H**. Local delivery of antineoplastic agents by controlled-release polymers for the treatment of malignant brain tumours. *Expert Opin.Biol.Ther.* 2005; 5(4): 477-494. PMID 15934827.
172. Mavinkurve G, Pradilla G, Legnani FG, Tyler BM, Bagley CA, **Brem H**, Jallo G. A novel intramedullary spinal cord tumor model: functional, radiological, and histopathological characterization. *J.Neurosurg.Spine.* 2005; 3(2): 142-148. PMID 16370303.
173. Gallia GL, Brem S, **Brem H**. Local treatment of malignant brain tumors using implantable chemotherapeutic polymers. *J.Natl.Compr.Canc Netw.* 2005; 3(5): 721-728. PMID 16194460.
174. Hsu W, Lesniak MS, Tyler B, **Brem H**. Local delivery of interleukin-2 and adriamycin is synergistic in the treatment of experimental malignant glioma. *J.Neurooncol.* 2005; 74(2): 135-140. PMID 16193383.
175. Lesniak MS, Upadhyay U, Goodwin R, Tyler B, **Brem H**. Local delivery of doxorubicin for the treatment of malignant brain tumors in rats. *Anticancer Res.* 2005; 25(6B): 3825-3831. PMID 16312042.
PMC1635000.

176. Pradilla G, Legnani FG, Petrangolini G, Francescato P, Chillemi F, Tyler BM, Gaini SM, **Brem H**, Olivi A, DiMeco F. Local delivery of a synthetic endostatin fragment for the treatment of experimental gliomas. *Neurosurgery*. 2005; 57(5): 1032-40; discussion 1032-40. PMID 16284573. PMC1635009.
177. Li Y, Ho Duc HL, Tyler B, Williams T, Tupper M, Langer R, **Brem H**, Cima MJ. In vivo delivery of BCNU from a MEMS device to a tumor model. *J.Control.Release*. 2005; 106(1-2): 138-145. PMID 16167384.
178. Quinn JA, Desjardins A, Weingart J, **Brem H**, Dolan ME, Delaney SM, Vredenburgh J, Rich J, Friedman AH, Reardon DA, Sampson JH, Pegg AE, Moschel RC, Birch R, McLendon RE, Provenzale JM, Gururangan S, Dancey JE, Maxwell J, Tourt-Uhlig S, Herndon JE,2nd, Bigner DD, Friedman HS. Phase I trial of temozolomide plus O6-benzylguanine for patients with recurrent or progressive malignant glioma. *J.Clin.Oncol*. 2005; 23(28): 7178-7187. PMID 16192602.
179. Brem SS, Bierman PJ, Black P, Blumenthal DT, **Brem H**, Chamberlain MC, Chiocca EA, DeAngelis LM, Fenstermaker RA, Fine HA, Friedman A, Glass J, Grossman SA, Heimberger AB, Junck L, Levin V, Loeffler JJ, Maor MH, Narayana A, Newton HB, Olivi A, Portnow J, Prados M, Raizer JJ, Rosenfeld SS, Shrieve DC, Sills AK,Jr, Spence AM, Vrionis FD, National Comprehensive Cancer Network. Central nervous system cancers: Clinical Practice Guidelines in Oncology. *J.Natl.Compr.Canc Netw*. 2005; 3(5): 644-690. PMID 16194456.
180. Pradilla G, Wang PP, Gabikian P, Li K, Magee CA, Walter KA, **Brem H**. Local intracerebral administration of Paclitaxel with the paclimer delivery system: toxicity study in a canine model. *J.Neurooncol*. 2006; 76(2): 131-138. PMID 16284923. PMC1635008.
181. Legnani FG, Pradilla G, Thai QA, Fiorindi A, Recinos PF, Tyler BM, Gaini SM, DiMeco F, **Brem H**, Olivi A. Lactacystin exhibits potent anti-tumor activity in an animal model of malignant glioma when administered via controlled-release polymers. *J.Neurooncol*. 2006; 77(3): 225-232. PMID 16609837. PMC1635004.
182. Caplan J, Pradilla G, Hdeib A, Tyler BM, Legnani FG, Bagley CA, **Brem H**, Jallo G. A novel model of intramedullary spinal cord tumors in rats: functional progression and histopathological characterization. *Neurosurgery*. 2006; 59(1): 193-200; discussion 193-200. PMID 16823316.
183. Piccirillo SG, Reynolds BA, Zanetti N, Lamorte G, Binda E, Broggi G, **Brem H**, Olivi A, Dimeco F, Vescovi AL. Bone morphogenetic proteins inhibit the tumorigenic potential of human brain tumour-initiating cells. *Nature*. 2006; 444(7120): 761-765. PMID 17151667.
184. 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. *J.Neurooncol*. 2006; 80(1): 9-17. PMID 16636748. PMC1780249.
185. Fruehauf JP, **Brem H**, Brem S, Sloan A, Barger G, Huang W, Parker R. In vitro drug response and molecular markers associated with drug resistance in malignant gliomas. *Clin.Cancer Res*. 2006; 12(15): 4523-4532. PMID 16899598.
186. Lawson HC, Sampath P, Bohan E, Park MC, Hussain N, Olivi A, Weingart J, Kleinberg L, **Brem H**. Interstitial chemotherapy for malignant gliomas: the Johns Hopkins experience. *J.Neurooncol*. 2007; 83(1): 61-70. PMID 17171441.
187. Bookland MJ, Bagley CA, Schwarz J, Burger PC, **Brem H**. Intracavernous trigeminal ganglion amyloidoma: case report. *Neurosurgery*. 2007; 60(3): E574; discussion E574. PMID 17327767.
188. Michaels RK, Makary MA, Dahab Y, Frassica FJ, Heitmiller E, Rowen LC, Cotreau R, **Brem H**, Pronovost PJ. Achieving the National Quality Forum's "Never Events": prevention of wrong site, wrong procedure, and wrong patient operations. *Ann.Surg*. 2007; 245(4): 526-532. PMID 17414599. PMC1877039.
189. Kominsky SL, Tyler B, Sosnowski J, Brady K, Doucet M, Nell D, Smedley JG,3rd, McClane B, **Brem H**, Sukumar S. Clostridium perfringens enterotoxin as a novel-targeted therapeutic for brain metastasis. *Cancer Res*. 2007; 67(17): 7977-7982. PMID 17804705.
190. Marupudi NI, Han JE, Li KW, Renard VM, Tyler BM, **Brem H**. Paclitaxel: a review of adverse toxicities and novel delivery strategies. *Expert Opin.Drug Saf*. 2007; 6(5): 609-621. PMID 17877447.
191. Brem S, Tyler B, Li K, Pradilla G, Legnani F, Caplan J, **Brem H**. Local delivery of temozolomide by biodegradable polymers is superior to oral administration in a rodent glioma model. *Cancer Chemother.Pharmacol*. 2007; 60(5): 643-650. PMID 17256133.

192. Marupudi NI, Han JE, Li KW, Renard VM, Tyler BM, Brem H. Paclitaxel: a review of adverse toxicities and novel delivery strategies. *Expert Opin Drug Saf.* 2007 Sep;6(5):609-21. doi: 10.1517/14740338.6.5.609. PMID: 17877447
193. Chaichana KL, Capilla-Gonzalez V, Gonzalez-Perez O, Pradilla G, Han J, Olivi A, **Brem H**, Garcia-Verdugo JM, Quinones-Hinojosa A. Preservation of glial cytoarchitecture from ex vivo human tumor and non-tumor cerebral cortical explants: A human model to study neurological diseases. *J.Neurosci.Methods.* 2007; 164(2): 261-270. PMID 17580092. PMC2744592.
194. Baird CJ, Hdeib A, Suk I, Francis HW, Holliday MJ, Tamargo RJ, **Brem H**, Long DM. Reduction of cerebrospinal fluid rhinorrhea after vestibular schwannoma surgery by reconstruction of the drilled porus acusticus with hydroxyapatite bone cement. *J.Neurosurg.* 2007; 107(2): 347-351. PMID 17695389.
195. Kim GY, Tyler BM, Tupper MM, Karp JM, Langer RS, **Brem H**, Cima MJ. Resorbable polymer microchips releasing BCNU inhibit tumor growth in the rat 9L flank model. *J.Control.Release.* 2007; 123(2): 172-178. PMID 17884232.
196. Sonabend AM, Velicu S, Ulasov IV, Han Y, Tyler B, **Brem H**, Matar MM, Fewell JG, Anwer K, Lesniak MS. A safety and efficacy study of local delivery of interleukin-12 transgene by PPC polymer in a model of experimental glioma. *Anticancer Drugs.* 2008; 19(2): 133-142. PMID 18176109.
197. Brem SS, Bierman PJ, Black P, **Brem H**, Chamberlain MC, Chiocca EA, DeAngelis LM, Fenstermaker RA, Friedman A, Gilbert MR, Glass J, Grossman SA, Heimberger AB, Junck L, Linette GP, Loeffler JJ, Maor MH, Moots P, Mrugala M, Nabors LB, Newton HB, Olivi A, Portnow J, Prados M, Raizer JJ, Shrieve DC, Sills AK,Jr. Central nervous system cancers. *J.Natl.Compr.Canc Netw.* 2008; 6(5): 456-504. PMID 18492461.
198. Gathinji M, McGirt MJ, Attenello FJ, Chaichana KL, Than K, Olivi A, Weingart JD, **Brem H**, Quinones-Hinojosa A. Association of preoperative depression and survival after resection of malignant brain astrocytoma. *Surg.Neurol.* 2009; 71(3): 299-303, discussion 303. PMID 18786716.
199. Attenello FJ, Mukherjee D, Datoo G, McGirt MJ, Bohan E, Weingart JD, Olivi A, Quinones-Hinojosa A, **Brem H**. Use of Gliadel (BCNU) wafer in the surgical treatment of malignant glioma: a 10-year institutional experience. *Ann.Surg.Oncol.* 2008; 15(10): 2887-2893. PMID 18636295.
200. McGirt MJ, Chaichana KL, Attenello FJ, Weingart JD, Than K, Burger PC, Olivi A, **Brem H**, Quinones-Hinojosa A. Extent of surgical resection is independently associated with survival in patients with hemispheric infiltrating low-grade gliomas. *Neurosurgery.* 2008; 63(4): 700-7; author reply 707-8. PMID 18981880.
201. Gallia GL, Tyler BM, Hann CL, Siu IM, Giranda VL, Vescovi AL, **Brem H**, Riggins GJ. Inhibition of Akt inhibits growth of glioblastoma and glioblastoma stem-like cells. *Mol.Cancer.Ther.* 2009; 8(2): 386-393. PMID 19208828.
202. McGirt MJ, Than KD, Weingart JD, Chaichana KL, Attenello FJ, Olivi A, Laterra J, Kleinberg LR, Grossman SA, **Brem H**, Quinones-Hinojosa A. Gliadel (BCNU) wafer plus concomitant temozolomide therapy after primary resection of glioblastoma multiforme. *J.Neurosurg.* 2009; 110(3): 583-588. PMID 19046047.
203. McGirt MJ, Chaichana KL, Gathinji M, Attenello FJ, Than K, Olivi A, Weingart JD, **Brem H**, Quinones-Hinojosa AR. Independent association of extent of resection with survival in patients with malignant brain astrocytoma. *J.Neurosurg.* 2009; 110(1): 156-162. PMID 18847342.
204. Chaichana KL, McGirt MJ, Woodworth GF, Datoo G, Tamargo RJ, Weingart J, Olivi A, **Brem H**, Quinones-Hinojosa A. Persistent outpatient hyperglycemia is independently associated with survival, recurrence and malignant degeneration following surgery for hemispheric low grade gliomas. *Neurol.Res.* 2010; 32(4):442-8. PMID 19589201.
205. Slager J, Tyler B, Shikanov A, Domb AJ, Shogen K, Sidransky D, **Brem H**. Local controlled delivery of anti-neoplastic RNase to the brain. *Pharm.Res.* 2009; 26(8): 1838-1846. PMID 19415468.
206. Recinos VR, Bekelis K, Ziegler SG, Vick D, Hertig S, Tyler BM, Li KW, Kosztowski T, Legnani FG, **Brem H**, Olivi A. Epirubicin exhibits potent anti-tumor activity in an animal model of malignant glioma when administered via controlled-release polymers. *J.Neurooncol.* 2010; 97(1): 1-10. PMID 19693439.
207. de Almeida JP, Petteys RJ, Sciubba DM, Gallia GL, **Brem H**. Regression of intracranial meningioma following intratumoral hemorrhage. *J.Clin.Neurosci.* 2009; 16(9): 1246-1249. PMID 19560362.
208. Recinos VR, Tyler BM, Bekelis K, Sunshine SB, Vellimana A, Li KW, **Brem H**. Combination of intracranial temozolomide with intracranial carmustine improves survival when compared with either

- treatment alone in a rodent glioma model. *Neurosurgery*. 2010; 66(3): 530-7; discussion 537. PMID 20173548.
209. Tyler B, Fowers KD, Li KW, Recinos VR, Caplan JM, Hdeib A, Grossman R, Basaldella L, Bekelis K, Pradilla G, Legnani F, Brem H. A thermal gel depot for local delivery of paclitaxel to treat experimental brain tumors in rats. *J.Neurosurg.* 2010; 113(2):210-7; PMID 20001591.
 210. Mukherjee D, Zaidi HA, Kosztowski T, Chaichana KL, **Brem H**, Chang DC, Quinones-Hinojosa A. Disparities in Access to Neuro-oncologic Care in the United States. *Arch.Surg.* 2010; 145(3): 247-253. PMID 20231625.
 211. Chaichana KL, Kosztowski T, Niranjan A, Olivi A, Weingart JD, Laterra J, **Brem H**, Quinones-Hinojosa A. Prognostic significance of contrast-enhancing anaplastic astrocytomas in adults. *J.Neurosurg.* 2010; 113(2):286-92 PMID 20302391.
 212. McGirt MJ, **Brem H**. Carmustine wafers (Gliadel) plus concomitant temozolamide therapy after resection of malignant astrocytomas: growing evidence for safety and efficacy. *Ann Surg Oncol.* 2010;17(7):1729-31. PMID: 20422453
 213. Grossman R, Mukherjee D, Chaichana KL, Salvatori R, Wand G, **Brem H**, Chang DC, Quiñones-Hinojosa A. Complications and Death Among Elderly Patients Undergoing Pituitary Tumor Surgery. *Clin Endocrinol.* 2010; Sep;73(3):361-8 PMID: 20455889
 214. Chaichana KL, Halthore AN, Parker SL, Olivi A, Weingart JD, **Brem H**, Quinones-Hinojosa A. Factors involved in maintaining prolonged functional independence following supratentorial glioblastoma resection. *J Neurosurg.* 2011; 114(3):604-12. PMID: 20524825
 215. Chaichana KL, Garzon-Muvdi T, Parker S, Weingart JD, Olivi A, Bennett R, **Brem H**, Quiñones-Hinojosa A. Supratentorial Glioblastoma Multiforme: The Role of Surgical Resection Versus Biopsy Among Older Patients. *Ann Surg Oncol.* 2011; 18(1):239-45. PMID: 20697823
 216. Raza SM, Gallia GL, **Brem H**, Weingart JD, Long DM, Olivi A. Perioperative and long-term outcomes from the management of parasagittal meningiomas invading the superior sagittal sinus. *Neurosurgery*. 2010; 67(4): 885-93; discussion 893. PMID 20802356
 217. Grossman R, Mukherjee D, Chang DC, Purtell M, Lim M, **Brem H**, Quiñones-Hinojosa A. Predictors of Inpatient Death and Complications among Postoperative Elderly Patients with Metastatic Brain Tumors. *Ann Surg Oncol.* 2011; 18(2):521-8. PMID: 20809176
 218. Chaichana KL, Chaichana KK, Olivi A, Weingart JD, Bennett R, **Brem H**, Quiñones-Hinojosa A. Surgical outcomes for older patients with glioblastoma multiforme: preoperative factors associated with decreased survival. *J Neurosurg.* 2011;114(3):587-94. PMID: 20887095.
 219. Scott AW, Tyler BM, Masi BC, Upadhyay UM, Patta YR, Grossman R, Basaldella L, Langer RS, **Brem H**, Cima MJ. Intracranial microcapsule drug delivery device for the treatment of an experimental gliosarcoma model. *Biomaterials*. 2011; 32(10):2532-9. PMID: 21220172
 220. Latimer K, Pendleton C, Olivi A, Cohen-Gadol AA, **Brem H**, Quiñones-Hinojosa A. Harvey Cushing's Open and Thorough Documentation of Surgical Mishaps at the Dawn of Neurological Surgery. *Arch Surg.* 2011;146 (2):226-32. PMID: 21339437
 221. Grossman R, Mukherjee D, Chang DC, Bennett R, **Brem H**, Olivi A, Quiñones-Hinojosa A. Preoperative charlson comorbidity score predicts postoperative outcomes among older intracranial meningioma patients. *World Neurosurg.* 2011;75(2):279-85. PMID: 21492731
 222. Brem SS, Bierman PJ, **Brem H**, Butowski N, Chamberlain MC, Chiocca EA, Deangelis LM, Fenstermaker RA, Friedman A, Gilbert MR, Hesser D, Junck L, Linette GP, Loeffler JS, Maor MH, Michael M, Moots PL, Morrison T, Mrugala M, Nabors LB, Newton HB, Portnow J, Raizer JJ, Recht L, Shrieve DC, Sills AK Jr, Vrionis FD, Wen PY. Central Nervous System Cancers. *J Natl Compr Canc Netw.* 2011;9(4):352-400. PMID: 21464114
 223. Tyler B, Wadsworth S, Recinos V, Mehta V, Vellimana A, Li K, Rosenblatt J, Do H, Gallia GL, Siu IM, Wicks RT, Rudek MA, Zhao M, **Brem H**. Local delivery of rapamycin: a toxicity and efficacy study in an experimental malignant glioma model in rats. *Neuro Oncol.* 2011;13(7):700-9. PMID:21727209
 224. Chaichana KL, Zaidi H, Pendleton C, McGirt MJ, Grossman R, Weingart JD, Olivi A, Quiñones-Hinojosa A, **Brem H**. The efficacy of carmustine wafers for older patients with glioblastoma multiforme: prolonging survival. *Neurol Res.* 2011;33(7):759-64. PMID: 21756557
 225. Grossman R, Tyler B, Hwang L, Zadnik P, Lal, B, Javaherian K, Brem H. Improvement in the standard treatment for experimental glioma by fusing antibody Fc domain to endostatin. *J. Neurosurg.* 2011;115(6):1139-46. PMID: 21923243.

226. Tyler BM, Hdeib A, Caplan J, Legnani FG, Fowers KD, **Brem H**, Jallo G, Pradilla G . Delayed onset of paresis in rats with experimental intramedullary spinal cord gliosarcoma following intratumoral administration of the paclitaxel delivery system OncoGel. *J Neurosurg Spine* . 2012;16(1):93-101 PMID:22208429.
227. Masi BC, Tyler BM, Bow H, Wicks RT, Xue Y, **Brem H**, Langer R, Cima MJ. Intracranial MEMS based temozolomide delivery in a 9L rat gliosarcoma model. *Biomaterials*. 2012;33(23):5768-75. PMID:22591609.
228. Link TW, Woodworth GF, Chaichana KL, Grossman SA, Mayer RS, **Brem H**, Weingart JD, Quiñones-Hinojosa A. Hyperglycemia is independently associated with post-operative function loss in patients with primary eloquent glioblastoma. *J Clin Neurosci*. 2012;19(7):966-1000. PMID:22595358.
229. Grossman R, Rudek MA, Brastianos H, Zadnik P, **Brem H**, Tyler B, Blakeley JO. The impact of bevacizumab on temozolomide concentrations in intracranial U87 gliomas. *Cancer Chemother Pharmacol*. 2012; 70(1):129-39. PMID: 22644796.
230. Chaichana KL, Jackson C, Patel A, Miller N, Subramanian P, Olivi A, Lim M, Gallia GL, Weingart JD, **Brem H**, Quiñones-Hinojosa A. Predictors of visual outcome following surgical resection of medial sphenoid wing meningiomas. *J Neurol Surg B Skull Base* 2012 Oct;73(5):321-6. PMC3578636.
231. Kong S, Senupta S, Tyler BM, Ma Q, Doucette S, Zhou J, Sahin A, Carter B, **Brem H**, Junghans RP, Sampath P. Supression of Human Glioma Xenografts with 2nd Generation IL13R-Specific Chimeric Antigen receptor-Modified T Cells. *Clin Cancer Res*. 2012;18(21):5949-5960.
232. Grossman R, Tyler B, **Brem H**, Eberhart CG, Wand S, Fu DX, Wen Z, Zhou J. Growth properties of SF 188/V+ human glioma in rats observed by magnetic resonance imaging. *J Neurooncol*. 2012; 110(3):315-23. PMC3500409.
233. Rege A, Seifert AC, Schlattman D, Ouyang Y, Li KW, Basaldella L, Brem H, Tyler BM, Thakor NV. Longitudinal in vivo monitoring of rodent glioma models through thinned skull using laser speckle contrast imaging. *J Biomed Opt*. 2012 Dec;17(12):126017. doi: 10.1117/1.JBO.17.12.126017. PMID: 23235836
234. Momin EN, Adams H, Shinohara RT, Frangakis C, Brem H, Quiñones-Hinojosa A. Postoperative mortality after surgery for brain tumors by patient insurance status in the United States. *Arch Surg*. 2012 Nov;147(11):1017-24. doi: 10.1001/archsurg.2012.1459. PMID: 23165616
235. Pendleton C, Olivi A, **Brem H**, Quiñones-Hinojosa A. Harvey Cushing's early treatment of meningiomas: the untold story. *World Neurosurg*. 2013 Jul-Aug;80(1-2):217-21. Epub 2011 Nov 7. PMID:22120300
236. Chaichana KL, Pendleton C, Zaidi H, Olivi A, Weingart JD, Gallia GL, Lim M, **Brem H**, Quiñones-Hinojosa A. Seizure control for patients undergoing meningioma surgery. *World Neurosurg*. 2013 Mar-Apr;79(3-4):515-24. PMID: 22469524.
237. Chaichana KL, Zadnik P, Weingart JD, Olivi A, Gallia GL, Blakeley J, Lim M, **Brem H**, Quiñones-Hinojosa A. Multiple resections for patients with glioblastoma: prolonging survival. *J Neurosurg*. 2013;118(4):812-20. PMC3700339.
238. Vellimana AK, Recinos VR, Hwang L, Fowers KD, Li KW, Zhang Y, Okonma S, Eberhart CG, **Brem H**, Tyler BM. Combination of paclitaxel thermal gel depot with temozolomide and radiotherapy significantly prolongs survival in an experimental rodent glioma model. *J Neurooncol*. 2013 Feb;111(3):229-36. PMC4029109.
239. Chaichana KL, Pendleton C, Jackson C, Martinez-Gutierrez J, Diaz-Stransky A, Aguayo J, Olivi A, Weingart J, Gallia GL, Lim M, **Brem H**, Quiñones-Hinojosa A: Deep venous thrombosis and pulmonary embolisms in adult patients undergoing craniotomy for brain tumors. *Neurol Res*. 2013 Mar;35(2):206-11. PMC3991124.
240. Jackson C, Ruzevick J, **Brem H**, Lim M. Vaccine strategies for glioblastoma: progress and future directions. *Immunotherapy*. 2013 Feb;5(2):155-67. PMC4086484.
241. Zeng J, See A, Phallen J, Jackson CM, Belcaid Z, Ruzevick J, Durham N, Meyer C, Harris TJ, Albesiano E, Pradilla G, Ford E, Wong J, Hammers H, Mathios D, Tyler BM, **Brem H**, Tran PT, Pardoll D, Drake CG, Lim M. Anti-PD-1 Blockade and Stereotactic Radiation Produce Long-Term Survival in Mice With Intracranial Gliomas. *Int J Radiat Oncol Biol Phys*. 2013 Jun 1;86(2):343-9. PMC3963403.
242. Chaichana KL, Martinez-Gutierrez JC, De la Garza-Ramos R, Weingart JD, Olivi A, Gallia GL, Lim M, **Brem H**, Quiñones-Hinojosa A: Factors associated with survival for glioblastoma patients who present with poor pre-operative functional status. *J Clin Neurosci*. 2013; 20(6):818-23. PMC3994533.
243. Grossman R, Tyler B, Rudek MA, Kim E, Zadnik P, Khan U, Blakeley JO, Pathak AP, **Brem H**. Microdialysis Measurement of Intratumoral Temozolomide Concentration after Cediranib, a Pan-VEGF

- Receptor Tyrosine Kinase Inhibitor, in a U87 Glioma Model. *Cancer Chemother Pharmacol*. 2013; 72(1):93-100. PMC4596243
244. Sattler R, Tyler BM, Hoover B, Coddington LT, Recinos V, Hwanf L, **Brem H**, Rothstein JD. Increased expression of glutamate transporter GLT-1 in peri-tumor tissue prolongs survival and decreases tumor growth in a rat model of experimental malignant glioma. *Laboratory investigation*. *J Neurosurg*. 2013;119(4):878-86. PMC4086647.
245. Nabors LB, Ammirati M, Bierman PJ, **Brem H**, Butowski N, Chamberlain MC, Deangelis LM, Fenstermaker RA, Friedman A, Gilbert MR, Hesser D, Holdhoff M, Junck L, Lawson R, Loeffler JS, Maor MH, Moots PL, Morrison T, Mrugala MM, Newton HB, Portnow J, Raizer JJ, Recht L, Shrieve DC, Sills AK Jr, Tran D, Tran N, Vrionis FD, Wen PY, McMillian N, Ho M. Central Nervous System Cancers. *J Natl Compr Canc Netw*; 2013; 1;11(9):1114-51. PMC4124889.
246. Chaichana KL, Gadkaree S, Rao K, Link T, Rigamonti D, Purtell M, Browner I, Weingart J, Olivi A, Gallia GL, Bettegowda C, **Brem H**, Lim M, Quinones-Hinojosa A. Patients undergoing surgery of intracranial metastases have different outcomes based on their primary pathology. *Neurology Res*. 2013 Dec;35(10):1059-69. PMC3994530.
247. Chaichana KL, Flores M, Acharya S, Sampognaro P, Bettegowda C, Rigamonti D, Weingart JD, Olivi A, Gallia GL, **Brem H**, Lim M, Quinones-Hinojosa A. Survival and recurrence for patients undergoing surgery of skull base intracranial metastases. *J Neurol Surg B Skull Base*. 2013 Aug;74(4):228-35. PMID: 24436917; PMC3715603.
248. Chaichana KL, Acharya S, Flores M, Wijesekera O, Rigamonti D, Weingart JD, Olivi A, Bettegowda C, Gallia GL, **Brem H**, Quinones-Hinojosa A. Identifying better surgical candidates among RPA class 2 patients who underwent surgery for intracranial metastases. *World Neurosurg*. 2013 Sep 25. pii: S1878-8750(13)01052-8 [Epub ahead of print] PMID: 24076052; PMC3995859.
249. Baia GS, Caballero OL, Ho JS, Zhao Q, Cohen T, Binder ZA, Salmasi V, Gallia GL, Quinones-Hinojosa A, Olivi A, **Brem H**, Burger P, Strausberg RL, Simpson AJ, Eberhart CG, Riggins GJ. NY-ESO-1 expression in meningioma suggests a rationale for new immunotherapeutic approaches. *Cancer Immunol Res*. 2013 Nov;1(5):296-302. Epub 2013 Aug 5. PMID: 24777967
250. Grossman R, Brastianos H, Blakeley JO, Mangraviti A, Lal B, Zadnik P, Hwang L, Wicks RT, Goodwin RC, **Brem H**, Tyler B. Combination of anti-VEGF therapy and temozolomide in two experimental human glioma models. *J Neurooncol*. 2014 Jan;116(1):59-65. Epub 2013 Nov 2. PMID:24185441. PMC4037922.
251. Chaichana KL, Jusue-Torres I, Navarro-Ramirez R, Raza SM, Pascual-Gallego M, Ibrahim A, Hernandez-Hermann M, Gomez L, Ye X, Weingart JD, Olivi A, Blakeley J, Gallia GL, Lim M, **Brem H**, Quinones-Hinojosa A. Establishing percent resection and residual volume thresholds affecting survival and recurrence for patients with newly diagnosed intracranial glioblastoma. *Neuro Oncol*. 2014 Jan;16(1):113-22. PMC3870832.
252. Chaichana KL, Rao K, Gadkaree S, Dangelmajer S, Bettegowsda C, Rigamonti D, Weingart J, Olivi A, Gallia GL, **Brem H**, Lim M, Quinones-Hinojosa A. Factors associated with survival and recurrence for patients undergoing surgery of cerebellar metastases. *Neurology Res*. 2014 Jan;36(1):13-25 245. PMID: 24070068.
253. Bow H, Hwang L, Schildhaus N, Xing J, Murray L, Salditch Q, Ye X, Zhang Y, Weingart J, **Brem H**, Tyler B. Local delivery of angiogenesis-inhibitor minocycline potentiates radiotherapy and oral temozolomide chemotherapy in 9L glioma. *Neurosurg*. 2014 Mar;120(3):662-9. PMID: 24359008.
254. Starmer HM, Ward BK, Best SR, Gourin CG, Akst LM, Hillel A, **Brem H**, Francis HW. Patient-Perceived Long-Term Communication and Swallow Function Following Cerebellopontine Angle Surgery. *Laryngoscope*; 2014;124(2):476-80. PMID: 23775221.
255. Bydon M, Martin Ma T, Xu R, Weingart J, Olivi A, Gokaslan ZL, Tamargo RJ, **Brem H**, Bydon A. Surgical outcomes of craniocervical junction meningiomas: A series of 22 consecutive patients. *Clin Neurol Neurosurg*. 2014 Feb;117:71-9. PMC4322893
256. Yohay K, Tyler B, Weaver KD, Pardo AC, Gincel D, Blakeley J, **Brem H**, Rothstein JD. Efficacy of local polymer-based and systemic delivery of the anti-glutamatergic agents riluzole and memantine in rat glioma models. *J Neurosurg*. 2014;120(4):854-63. PMC4322948.
257. Bettegowda C, Sausen M, Leary RJ, Kinde I, Wang Y, Agrawal N, Bartlett BR, Wang H, Luber B, Alani RM, Antonarakis ES, Azad NS, Bardelli A, **Brem H**, Cameron JL, Lee CC, Fecher LA, Gallia GL, Gibbs P, Le D, Giuntoli RL, Goggins M, Hogarty MD, Holdhoff M, Hong SM, Jiao Y, Juhl HH, Kim JJ, Siravegna G, Laheru DA, Lauricella C, Lim M, Lipson EJ, Marie SK, Netto GJ, Oliner KS, Olivi A, Olsson

- L, Riggins GJ, Sartore-Bianchi A, Schmidt K, Shih IM, Oba-Shinjo SM, Siena S, Theodorescu D, Tie J, Harkins TT, Veronese S, Wang TL, Weingart JD, Wolfgang CL, Wood LD, Xing D, Hruban RH, Wu J, Allen PJ, Schmidt CM, Choti MA, Velculescu VE, Kinzler KW, Vogelstein B, Papadopoulos N, Diaz LA Jr. Detection of circulating tumor DNA in early- and late-stage human malignancies. *Sci Transl Med.* 2014;19(224):224ra24. PMC4017867.
258. Gabikian P, Tyler BM, Zhang I, Li KW, **Brem H**, Walter KA. Radiosensitization of malignant gliomas following intracranial delivery of paclitaxel biodegradable polymer microspheres. *J Neurosurg.* 2014;120(5):1078-85. PMC4322932
259. Wicks RT, Huang Y, Zhang K, Zhao M, Tyler BM, Suk I, Hwang L, Ruzevick J, Jallo G, **Brem H**, Pradilla G, Kang JU. Extravascular optical coherence tomography: evaluation of carotid atherosclerosis and pravastatin therapy. *Stroke.* 2014 Apr;45(4):1123-30. PMC3971651.
260. Belcaid Z, Phallen JA, Zeng J, See AP, Mathios D, Gottschalk C, Nicholas S, Kellett M, Ruzevick J, Jackson C, Albesiano E, Durham NM, Ye X, Tran PT, Tyler B, Wong JW, **Brem H**, Pardoll DM, Drake CG, Lim M. Focal Radiation Therapy Combined with 4-1BB Activation and CTLA-4 Blockade Yields Long-Term Survival and a Protective Antigen-Specific Memory Response in a Murine Glioma Model. *PLoS One.* 2014 Jul 11;9(7):e101764. PMC4094423.
261. Wicks RT, Azadi J, Mangraviti A, Zhang I, Hwang L, Joshi A, Bow H, Hutt-Cabezas M, Martin KL, Rudek MA, Zhao M, **Brem H**, Tyler BM. Local delivery of cancer-cell glycolytic inhibitors in high-grade glioma. *Neuro Oncol.* Neuro Oncol. 2015 Jan;17(1):70-80. PMC4483048
262. Woodworth GF, Dunn GP, Nance EA, Hanes J, **Brem H**. Emerging insights into barriers to effective brain tumor therapeutics. *Front Oncol.* 2014 Jul 21;4:126. PMC4104487.
263. Upadhyay UM, Tyler BM, Patta YR, Wicks RT, Spencer KC, Scott AW, Masi B, Hwang LS, Grossman R, Cima M, **Brem H**, Langer R. Intracranial Microcapsule Chemotherapy Delivery for the Localized Treatment of Rodent Metastatic Breast Adenocarcinoma in the Brain. *Proc Natl Acad Sci U S A.* 2014 Nov 11;111(45):16071-6. PMC4234553
264. Nabors LB, Portnow J, Ammirati M, **Brem H**, Brown P, Butowski N, Chamberlain MC, DeAngelis LM, Fenstermaker RA, Friedman A, Gilbert MR, Hattangadi-Gluth J, Hesser D, Holdhoff M, Junck L, Lawson R, Loeffler JS, Moots PL, Mrugala MM, Newton HB, Raizer JJ, Recht L, Shonka N, Shrieve DC, Sills AK Jr, Swinnen LJ, Tran D, Tran N, Vrionis FD, Wen PY, McMillian NR, Ho M. Central nervous system cancers, version 2.2014. *J Natl Compr Canc Netw.* 2014 Nov;12(11):1517-23. PMC4337873
265. Bydon M, Abt NB, Macki M, **Brem H**, Huang J, Bydon A, et al. Preoperative anemia increases postoperative morbidity in elective cranial neurosurgery. *Surg Neurol Int.* 2014;5:156. PMC4235129
266. Mangraviti A, Tzeng SY, Kozielski KL, Wang Y, Jin Y, Gullotti D, Pedone M, Buaron N, Liu A, Wilson DR, Hansen SK, Rodriguez FJ, Gao GD, DiMeco F, **Brem H**, Olivi A, Tyler BM, Green JJ. Polymeric Nanoparticles for Non-Viral Gene Therapy Extend Brain Tumor Survival In Vivo. *ACS Nano.* 2015 Feb 24;9(2):1236-49. PMC4342728
267. Mangraviti A, Tyler BM, **Brem H**. Interstitial Chemotherapy for Malignant Glioma: Future Prospects In the Era Of Multimodal Therapy. *Surg Neurol Int.* 2015;6:S78-84. PMC4338488
268. Zhang F, Mastorakos P, Mishra MK, Mangraviti A, Hwang L, Zhou J, Hanes J, **Brem H**, Olivi A, Tyler B, Kannan RM. Uniform brain tumor distribution and tumor associated macrophage targeting of systemically administered dendrimers. *Biomaterials.* 2015 Jun;52:507-16. PMC4710089
269. Chaichana KL, Pinheiro L, **Brem H**. Delivery of local therapeutics to the brain: working toward advancing treatment for malignant gliomas. *Ther Deliv.* 2015 Apr;6(3):353-69. PMC4696051
270. Sesen J, Dahan P, Scotland SJ, Saland E, Dang VT, Lemarié A, Tyler BM, **Brem H**, Toulias C, Cohen-Jonathan Moyal E, Sarry JE, Skuli N. Metformin Inhibits Growth of Human Glioblastoma Cells and Enhances Therapeutic Response. *PLoS One.* 2015 Apr 13;10(4):e0123721. PMC4395104
271. Berli JU, Thomaier L, Zhong S, Huang J, Quinones A, Lim M, Weingart J, **Brem H**, Gordon CR. Immediate Single-Stage Cranioplasty Following Calvarial Resection for Benign and Malignant Skull Neoplasms Using Customized Craniofacial Implants. *J Craniofac Surg.* 2015 Jul;26(5):1456-62.
272. Wang Y, Springer S, Zhang M, McMahon KW, Kinde I, Dobbyn L, Ptak J, **Brem H**, Chaichana K, Gallia GL, Gokaslan ZL, Groves ML, Jallo GI, Lim M, Olivi A, Quinones-Hinojosa A, Rigamonti D, Riggins GJ, Sciubba DM, Weingart JD, Wolinsky JP, Ye X, Oba-Shinjo SM, Marie SK, Holdhoff M, Agrawal N, Diaz

- LA Jr, Papadopoulos N, Kinzler KW, Vogelstein B, Bettegowda C. Detection of tumor-derived DNA in cerebrospinal fluid of patients with primary tumors of the brain and spinal cord. *Proc Natl Acad Sci U S A*. 2015 Aug 4;112(31):9704-9. PMID: 26195750
273. Grossman R, Burger P, Soudry E, Tyler B, Chaichana KL, Weingart J, Olivi A, Gallia GL, Sidransky D, Quiñones-Hinojosa A, Ye X, **Brem H**. MGMT inactivation and clinical response in newly diagnosed GBM patients treated with Gliadel. *J Clin Neurosci*. 2015 Dec;22(12):1938-42. PMID: 26249244
274. Nabors LB, Portnow J, Ammirati M, Baehring J, **Brem H**, Brown P, Butowski N, Chamberlain MC, Fenstermaker RA, Friedman A, Gilbert MR, Hattangadi-Gluth J, Holdhoff M, Junck L, Kaley T, Lawson R, Loeffler JS, Lovely MP, Moots PL, Mrugala MM, Newton HB, Parney I, Raizer JJ, Recht L, Shonka N, Shrieve DC, Sills AK Jr, Swinnen LJ, Tran D, Tran N, Vrionis FD, Weiss S, Wen PY, McMillian N, Engh AM. Central Nervous System Cancers, Version 1.2015. *J Natl Compr Canc Netw*. 2015 Oct;13(10):1191-202. PMID: 26483059
275. Jackson CM, Kochel CM, Nirschl CJ, Durham NM, Ruzevick J, Alme A, Francica BJ, Elias J, Daniels A, Dubensky TW Jr, Lauer P, Brockstedt D, Baxi EG, Calabresi PA, Taube JM, Pardo CA, **Brem H**, Pardoll DM, Lim M, Drake CG. Systemic Tolerance Mediated by Melanoma Brain Tumors is Reversible by Radiotherapy and Vaccination. *Clin Cancer Res*. 2016 Mar 1;22(5):1161-72. PMC4825863
276. Yoshida J, Wicks RT, Zambrano AI, Tyler BM, Javaherian K, Grossman R, Daoud YJ, Gelbach P, **Brem H**, Stark WJ. Inhibition of Corneal Neovascularization by Subconjunctival Injection of Fc-Endostatin, a Novel Inhibitor of Angiogenesis. *J Ophthalmol*. 2015;2015:137136. PMC4600943.
277. De la Garza-Ramos R, Kerezoudis P, Tamargo RJ, **Brem H**, Huang J, Bydon M. Surgical complications following malignant brain tumor surgery: An analysis of 2002-2011 data. *Clin Neurol Neurosurg*. 2015 Nov 12;140:6-10. PMC4750489.
278. Jackson S, Anders NM, Mangraviti A, Wanjiku TM, Sankey EW, Liu A, **Brem H**, Tyler B, Rudek MA, Grossman SA. The effect of regadenoson-induced transient disruption of the blood-brain barrier on temozolomide delivery to normal rat brain. *J Neurooncol*. 2016 Feb;126(3):433-9. PMC4733584
279. Sankey EW, Lopez J, Zhong SS, Susarla H, Jusué-Torres I, Liauw J, Huang J, Streiff M, **Brem H**, Gordon CR. Anticoagulation for Hypercoagulable Patients Associated with Complications after Large Cranioplasty Reconstruction. *Plast Reconstr Surg*. 2016 Feb;137(2):595-607. doi: 10.1097/01.prs.0000475773.99148.ba. PMID: 26818296
280. Lopez J, Zhong SS, Sankey EW, Swanson EW, Susarla H, Jusue-Torres I, Huang J, **Brem H**, Auwaerter PG, Gordon CR. Time Interval Reduction for Delayed Implant-Based Cranioplasty Reconstruction in the Setting of Previous Bone Flap Osteomyelitis. *Plast Reconstr Surg*. 2016 Feb;137(2):394e-404e. doi: 10.1097/01.prs.0000475770.14396.1e. PMID: 26818330
281. Tyler BM, Liu A, Sankey EW, Mangraviti A, Barone MA, Brem H. The Johns Hopkins Hunterian Laboratory Philosophy: Mentoring Students in a Scientific Neurosurgical Research Laboratory. *Acad Med*. 2016 Jun;91(6):778-84. doi: 10.1097/ACM.0000000000001136. PMID: 26934692
282. Mangraviti A, Gullotti D, Tyler B, **Brem H**. Nanobiotechnology-based delivery strategies: New frontiers in brain tumor targeted therapies. *J Control Release*. 2016 Mar 23. pii: S0168-3659(16)30165-1. PMID: 27016141.
283. Binder ZA, Wilson KM, Salmasi V, Orr BA, Eberhart CG, Siu IM, Lim M, Weingart JD, Quinones-Hinojosa A, Bettegowda C, Kassam AB, Olivi A, **Brem H**, Riggins GJ, Gallia GL. Establishment and Biological Characterization of a Panel of Glioblastoma Multiforme (GBM) and GBM Variant Oncosphere Cell Lines. *PLoS One*. 2016 Mar 30;11(3):e0150271. PMC4814135.
284. Gordon CR, Tamargo RJ, **Brem H**, Huang J. Discussion of Effect of Reflection of Temporalis Muscle During Cranioplasty With Titanium Mesh After Standard Trauma Craniectomy. *J Craniofac Surg*. 2016 May;27(3):654-5. PMID: 27054423.
285. Nailor A, Walker DA, Jacques TS, Warren KE, **Brem H**, Kearns PR, Greenwood J, Penny JI, Pilkington GJ, Carcaboso AM, Fleischhack G, Macarthur D, Slavc I, Meijer L, Gill S, Lowis S, van Vuurden DG, Pearl MS, Clifford SC, Morrissy S, Ivanov DP, Beccaria K, Gilbertson RJ, Straathof K, Green JJ, Smith S, Rahman R, Kilday JP. Highlights of Children with Cancer UK's Workshop on Drug Delivery in Paediatric Brain Tumours. *Ecancermedicalscience*. 2016 Mar 31;10:630. PMC4817522.
286. Patel MA, Kim JE, Theodros D, Tam A, Velarde E, Kochel CM, Francica B, Nirschl TR, Ghasemzadeh A, Mathios D, Harris-Bookman S, Jackson CC, Jackson C, Ye X, Tran PT, Tyler B, Coric V, Selby M, **Brem H**, Drake CG, Pardoll DM, Lim M. Agonist anti-GITR monoclonal antibody and stereotactic radiation induce immune-mediated survival advantage in murine intracranial glioma. *J Immunother Cancer*. 2016

- May 17;4:28. PMC4869343. PMID: 27190629
287. Mangraviti A, Tzeng SY, Gullotti D, Kozielski KL, Kim JE, Seng M, Abbadi S, Schiapparelli P, Sarabia Estrada R, Vescovi A, **Brem H**, Olivi A, Tyler B, Green JJ, Quinones-Hinojosa A. Non-virally engineered human adipose mesenchymal stem cells produce BMP4, target brain tumors, and extend survival. *Biomaterials*. 2016 Sep;100:53-66. PMC4902753
288. Chintakunta R, Buaron N, Kahn N, Moriah A, Lifshiz R, Goldbart R, Traitel T, Tyler B, **Brem H**, Kost J. Synthesis, characterization, and self-assembly with plasmid DNA of a quaternary ammonium derivative of pectic galactan and its fluorescent labeling for bioimaging applications. *Carbohydr Polym*. 2016 Oct 5;150:308-18. PMID: 27312642
289. Kim JE, Patel MA, Mangraviti A, Kim ES, Theodros D, Velarde E, Liu A, Sankey E, Tam A, Xu H, Mathios D, Jackson CM, Harris-Bookman S, Garzon-Muvdi T, Sheu M, Martin AM, Tyler BM, Tran PT, Ye X, Olivi A, Taube JM, Burger PC, Drake CG, **Brem H**, Pardoll DM, Lim M. Combination therapy with anti-PD-1, anti-TIM-3, and focal radiation results in regression of murine gliomas. *Clin Cancer Res*. 2017 Jan 1;23(1):124-136. doi: 10.1158/1078-0432.CCR-15-1535. Epub 2016 Jun 29. PMID: 27358487.
290. Tyler B, Gullotti D, Mangraviti A, Utsuki T, **Brem H**. Polylactic acid (PLA) controlled delivery carriers for biomedical applications. *Adv Drug Deliv Rev*. 2016 Dec 15;107:163-175. PMID: 27426411
291. Ashayeri K, Jackson E, Huang J, **Brem H**, Gordon C. Syndrome of the Trephined: A Systematic Review. *Neurosurgery*. 2016 Oct;79(4):525-34
292. Sonabend AM, Zacharia BE, Cloney MB, Sonabend A, Showers C, Ebiana V, Nazarian M, Swanson KR, Baldock A, **Brem H**, Bruce JN, Butler W, Cahill DP, Carter B, Orringer DA, Roberts DW, Sagher O, Sanai N, Schwartz TH, Silbergeld DL, Sisti MB, Thompson RC, Waziri AE, McKhann G 2nd. Defining Glioblastoma Resectability Through the Wisdom of the Crowd: A Proof-of-Principle Study. *Neurosurgery*. 2017 Apr 1;80(4):590-601. PMID: 27509070
293. Gordon CR, Murphy RJ, Armand M, Liacouras P, Weingart J, Huang J, **Brem H**, Lim M. Discussion on: Usefulness of an Osteotomy Template for Skull Tumorectomy and Simultaneous Skull Reconstruction. *J Craniofac Surg*. 2016 Sep;27(6):1568-70. PMC5014661
294. Volpin F, Casaos J, Sesen J, Mangraviti A, Choi J, Gorelick N, Frikeche J, Lott T, Felder R, Scotland SJ, Eisinger-Mathason TSK, Brem H, Tyler B, Skuli N. Use of an anti-viral drug, Ribavirin, as an anti-glioblastoma therapeutic. *Oncogene*. 2017 May 25;36(21):3037-3047. doi: 10.1038/onc.2016.457. Epub 2016 Dec 12. PMID: 27941882
295. Mathios D, Kim JE, Mangraviti A, Phallen J, Park CK, Jackson CM, Garzon-Muvdi T, Kim E, Theodros D, Polanczyk M, Martin AM, Suk I, Ye X, Tyler B, Bettegowda C, **Brem H**, Pardoll DM, Lim M. Anti-PD-1 antitumor immunity is enhanced by local and abrogated by systemic chemotherapy in GBM. *Sci Transl Med*. 2016 Dec 21;8(370):370ra180. PMID: 28003545
296. Kessler RA, Garzon-Muvdi T, Yang W, Weingart J, Olivi A, Huang J, **Brem H**, Lim M. Metastatic Atypical and Anaplastic Meningioma: A Case Series and Review of the Literature. *World Neurosurg*. 2017 Jan 28. pii: S1878-8750(17)30093-1. doi: 10.1016/j.wneu.2017.01.070. PMID: 28143726
297. Garzon-Muvdi T, Yang W, Lim M, Brem H, Huang J. Atypical and anaplastic meningioma: outcomes in a population based study. *J Neurooncol*. 2017 Jun;133(2):321-330. doi: 10.1007/s11060-017-2436-6. Epub 2017 Apr 20. PMID: 28429237
298. Zhang C, Nance EA, Mastorakos P, Chisholm J, Berry S, Eberhart C, Tyler B, **Brem H**, Suk JS, Hanes J. Convection enhanced delivery of cisplatin-loaded brain penetrating nanoparticles cures malignant glioma in rats. *J Control Release*. 2017 Mar 7. pii: S0168-3659(17)30110-4. doi: 10.1016/j.jconrel.2017.03.007.
299. **Brem H**, Sankey EW, Liu A, Mangravati A, Tyler B. "Developing Therapies for Brain Tumors: The Impact of the Johns Hopkins Hunterian Neurosurgical Research Laboratory". *Transactions of the American Clinical and Climatological Association*. 2017; 128: 55-74. PMID: 28790487
300. Paldor I, Abbadi S, Bonne N, Ye X, Rodriguez FJ, Rowshanshad D, Itzoe M, Vigilar V, Giovannini M, **Brem H**, Blakeley JO, Tyler BM. "The efficacy of lapatinib and nilotinib in combination with radiation therapy in a model of NF2 associated peripheral schwannoma". *J Neurooncol*. 2017 Jul 22. doi: 10.1007/s11060-017-2567-9.
301. Wu A, Weingart JD, Gallia GL, Lim M, **Brem H**, Bettegowda C, Chaichana KL. "Risk Factors for Preoperative Seizures and Loss of Seizure Control in Patients Undergoing Surgery for Metastatic Brain Tumors". *World Neurosurg*. 2017 Aug; 104:120-128. doi: 10.1016/j.wneu.2017.05.028. PMID: 28512046
302. Asemota A, Ishii M, **Brem H**, Gallia, GL. "Comparison of Complications, Trends and Costs in Endoscopic vs Microscopic Pituitary Surgery: Analysis from a US Health Claims Database". *Neurosurgery*. 2017 Sep

- 1;81(3):458-472. doi: 10.1093/neuros/nyx350. PMID: 28859453
303. Manbachi A, Kreamer-Tonin K, Walch P, Gamo NJ, Khoshakhlagh P, Zhang YS, Montague C, Acharya S, Logsdon EA, Allen RH, Durr NJ, Luciano MG, Theodore N, **Brem H**, Yazdi Y. "Starting a Medical Technology Venture as a Young Academic Innovator or Student Entrepreneur". *Ann Biomed Eng*. 2018 Jan;46(1):1-13. doi: 10.1007/s10439-017-1938-x. Epub 2017 Oct 10. PMID: 29019076
304. Gordon CR, Santiago GF, Huang J, Bergey GK, Liu S, Armand M, Brem H, Anderson WS. First InHuman Experience With Complete Integration of Neuromodulation Device Within a Customized Cranial Implant. *Oper Neurosurg (Hagerstown)*. 2018 Jul 1;15(1):39-45. doi: 10.1093/ons/opx210. PMID: 29029236
305. Ehresman JS, Garzon-Muvdi T, Rogers D, Lim M, Gallia GL, Weingart J, **Brem H**, Bettegowda C, Chaichana KL. "The Relevance of Simpson grade resections in the modern neurosurgical treatment of World Health Organization Grade 1, 2, and 3 meningiomas. *World Neurosurg*. 2017 Oct 14. pii: S1878-8750(17)31755-2. doi: 10.1016/j.wneu.2017.10.028. PMID: 29042332
306. Gordon CR, Huang J, **Brem H**. "Neuroplastic Surgery". *J Craniofac Surg*. 2017 Oct 26. doi: 10.1097/SCS.0000000000004063. PMID: 29077688
307. Mangraviti A, Raghavan T, Volpin F, Skuli N, Gullotti D, Zhou J, Asnaghi L, Sankey E, Liu A, Wang Y, Lee DH, Gorelick N, Serra R, Peters M, Schriefer D, Delaspre F, Rodriguez FJ, Eberhart CG, **Brem H**, Olivi A, Tyler B. "HIF-1 α - Targeting Acriflavine Provides Long Term Survival and Radiological Tumor Response in Brain Cancer Therapy." *Sci Rep*. 2017 Nov 2;7(1):14978. doi:10.1038/s41598-017-14990-w. PMID: 29097800
308. Nabors LB, Portnow J, Ammirati M, Baehring J, **Brem H**, Butowski N, Fenstermaker RA, Forsyth P, Hattangadi-Gluth J, Holdhoff M, Howard S, Junck L, Kaley T, Kumthekar P, Loeffler JS, Moots PL, Mrugala MM, Nagpal S, Pandey M, Parney I, Peters K, Puduvalli VK, Ragsdale J 3rd, Rockhill J, Rogers L, Rusthoven C, Shonka N, Shrieve DC, Sills AK Jr, Swinnen LJ, Tsien C, Weiss S, Wen PY, Willmarth N, Bergman MA, Engh A. "NCCN Guidelines Insights: Central Nervous System Cancers, Version 1.2017." *J Natl Compr Canc Netw*. 2017 Nov;15(11):1331-1345. doi: 10.6004/jnccn.2017.0166. PMID: 29118226
309. Casaos J, Huq S, Lott T, Felder R, Choi J, Gorelick N, Peters M, Xia Y, Maxwell R, Zhao T, Ji C, Simon T, Sesen J, Scotland SJ, Kast RE, Rubens J, Raabe E, Eberhart CG, Jackson EM, **Brem H**, Tyler B, Skuli N. "Ribavirin as a potential therapeutic for atypical teratoid/rhabdoid tumors." *Oncotarget*. 2018 Jan 3;9(8):8054-8067. doi: 10.18632/oncotarget.23883. eCollection 2018 Jan 30. PMID: 29487714
310. Wolff A, Santiago GF, Belzberg M, Huggins C, Lim M, Weingart J, Anderson W, Coon A, Huang J, **Brem H**, Gordon C. Adult Cranioplasty Reconstruction With Customized Cranial Implants: Preferred Technique, Timing, and Biomaterials. *J Craniofac Surg*. 2018 Feb 27. doi: 10.1097/SCS.0000000000004385. PMID: 29489570
311. Garzon-Muvdi T, Theodos D, Luksik AS, Maxwell R, Kim E, Jackson CM, Belcaid Z, Ganguly S, Tyler B, **Brem H**, Pardoll DM, Lim M. Dendritic cell activation enhances anti-PD-1 mediated immunotherapy against glioblastoma. *Oncotarget*. 2018 Apr 17;9(29):20681-20697. doi: 10.18632/oncotarget.25061. eCollection 2018 Apr 17. PMID: 29755681
312. Santiago GF, Terner J, Wolff A, Teixeira J, **Brem H**, Huang J, Gordon CR. Post-Neurosurgical Temporal Deformities: Various Techniques for Correction and Associated Complications. *J Craniofac Surg*. 2018 Oct;29(7):1723-1729. doi: 10.1097/SCS.0000000000004639. PMID: 29863558
313. Collins M, Rum S, Wheeler J, Antman K, **Brem H**, Carrese J, Glennon M, Kahn J, Ohman M, Jaggi R, Konrath S, Tovino S, Wright S, Sugarman J. "Ethical Issues and Recommendations in Grateful Patient Fundraising and Philanthropy". *Acad Med*. 2018 Nov;93(11):1631-1637. doi: 10.1097/ACM.0000000000002365. PMID: 30024472
314. Hung AL, Maxwell R, Theodos D, Belcaid Z, Mathios D, Luksik AS, Kim E, Wu A, Xia Y, Garzon-Muvdi T, Jackson C, Ye X, Tyler B, Selby M, Korman A, Barnhart B, Park SM, Youn JI, Chowdhury T, Park CK, **Brem H**, Pardoll DM, Lim M. TIGIT and PD-1 dual checkpoint blockade enhances antitumor immunity and survival in GBM. *Oncoimmunology*. 2018 May 24;7(8):e1466769. doi: 10.1080/2162402X.2018.1466769. eCollection 2018. PMID: 30221069
315. Harris-Bookman S, Mathios D, Martin AM, Xia Y, Kim E, Xu H, Belcaid Z, Polanczyk M, Barberi T, Theodos D, Kim J, Taube JM, Burger PC, Selby M, Taitt C, Korman A, Ye X, Drake CG, **Brem H**, Pardoll DM, Lim M. Expression of LAG-3 and efficacy of combination treatment with anti-LAG-3 and anti-PD-1 monoclonal antibodies in glioblastoma. *Int J Cancer*. 2018 Sep 24. doi: 10.1002/ijc.31661.

- PMID: 30248181
316. Asemota AO, Ishii M, **Brem H**, Gallia GL. Costs and Their Predictors in Transsphenoidal Pituitary Surgery. *Neurosurgery*. 2019 Nov 1;85(5):695-707. doi: 10.1093/neuros/nyy441. PMID: 30339258
317. Wolff AY, Santiago GF, Belzberg M, Manson PN, Huang J, **Brem H**, Gordon CR. Full-Thickness Skin Grafting for Local Defect Coverage Following Scalp Adjacent Tissue Transfer in the Setting of Cranioplasty. *J Craniofac Surg*. 2019 Jan;30(1):115-119. doi: 10.1097/SCS.00000000000004872. PMID: 30394971
318. Santiago G, Wolff A, Huang J, Weingart J, **Brem H**, Gordon CR. Dural Reconstruction With Autologous Rectus Fascia: A New Technique for Addressing Large-Sized Defects During Cranioplasty. *J Craniofac Surg*. 2018 Nov 13. doi: 10.1097/SCS.0000000000004895. PMID: 30439737
319. Maxwell R, Luksik AS, Garzon-Muvdi T, Hung AL, Kim ES, Wu A, Xia Y, Belcaid Z, Gorelick N, Choi J, Theodros D, Jackson CM, Mathios D, Ye X, Tran PT, Redmond KJ, **Brem H**, Pardoll DM, Kleinberg LR, Lim M. Contrasting impact of corticosteroids on anti-PD-1 immunotherapy efficacy for tumor histologies located within or outside the central nervous system. *Oncoimmunology*. 2018 Sep 6;7(12):e1500108. doi: 10.1080/2162402X.2018.1500108. PMID: 30524891
320. Shapira-Furman T, Serra R, Gorelick N, Doglioli M, Tagliaferri V, Cecia A, Peters M, Kumar A, Rottenberg Y, Langer R, **Brem H**, Tyler B, Domb AJ. Biodegradable wafers releasing Temozolomide and Carmustine for the treatment of brain cancer. *J Control Release*. 2018 Dec 31;295:93-101. doi: 10.1016/j.jconrel.2018.12.048.
321. Nicholas SE, Salvatori R, Quinones-Hinojosa A, Redmond K, Gallia G, Lim M, Rigamonti D, **Brem H**, Kleinberg L. Deferred Radiotherapy After Debulking of Non-functioning Pituitary Macroadenomas: Clinical Outcomes. *Front Oncol*. 2019 Jan 10;8:660. doi: 10.3389/fonc.2018.00660. eCollection 2018. PMID: 30687636.
322. Ehresman JS, Garzon-Muvdi T, Rogers D, Lim M, Gallia GL, Weingart J, **Brem H**, Bettegowda C, Chaichana KL. Risk of Developing Postoperative Deficits Based on Tumor Location after Surgical Resection of an Intracranial Meningioma. *J Neurol Surg B Skull Base*. 2019 Feb;80(1):59-66. doi: 10.1055/s-0038-1667066. Epub 2018 Jul 17. PMID: 30733902
323. Gordon CR, Wolff A, Santiago GF, Liebman K, Veznedaroglu E, Vrionis FD, Huang J, **Brem H**, Luciano M. First-in-Human Experience With Integration of a Hydrocephalus Shunt Device Within a Customized Cranial Implant. *Oper Neurosurg* (Hagerstown). 2019 Feb 7. doi: 10.1093/ons/opz003. PMID: 30753624.
324. Belzberg M, Ben-Shalom N, Yuhanna E, Manbachi A, Tekes A, Huang J, **Brem H**, Gordon CR. Sonolucent Cranial Implants: Cadaveric study and Clinical Findings Supporting Diagnostic and Therapeutic Trans-Cranioplasty Ultrasound. *J Craniofac Surg* 2019 Jul;30(5):1456-1461. doi: 10.1097/SCS.0000000000005454. PMID: 31299743.
325. Wu A, Maxwell R, Xia Y, Cardarelli P, Oyasu M, Belcaid Z, Kim E, Hung A, Luksik AS, Garzon-Muvdi T, Jackson CM, Mathios D, Theodros D, Cogswell J, **Brem H**, Pardoll DM, Lim M. Combination anti-CXCR4 and anti-PD-1 immunotherapy provides survival benefit in glioblastoma through immune cell modulation of tumor microenvironment. *J Neurooncol*. 2019 Apr 25. doi: 10.1007/s11060-019-03172-5. PMID: 31025274.
326. Smith SJ, Tyler B, Gould TWA, Veal GJ, Gorelick NL, Rowlinson J, Serra R, Ritchie AA, Berry P, Otto A, Choi J, Skuli N, Estevez-Cebreiro MA, Shakesheff KM, **Brem H**, Grundy RG, Rahman R. Overall survival in malignant glioma is significantly prolonged by neurosurgical delivery of etoposide and temozolomide from a thermo-responsive biodegradable paste. *Clin Cancer Res*. 2019 May 21. pii: clincanres.3850.2018. doi: 10.1158/1078-0432.CCR-18-3850. [Epub ahead of print] PMID: 31113843.
327. Belzberg M, Shalom NB, Lu A, Yuhanna E, Manbachi A, Tekes A, Huang J, **Brem H**, Gordon C. Transcranioimplasty Ultrasound Through a Sonolucent Cranial Implant Made of Polymethyl Methacrylate: Phantom Study Comparing Ultrasound, Computed Tomography, and Magnetic Resonance Imaging. *J Craniofac Surg*. 2019 Jun 7. doi: 10.1097/SCS.0000000000005651. PMID: 31188246.
328. Casaos J, Gorelick NL, Huq S, Choi J, Xia Y, Serra R, Felder R, Lott T, Kast RE, Suk I, **Brem H**, Tyler B, Skuli N. The Use of Ribavirin as an Anticancer Therapeutic: Will It Go Viral? *Mol Cancer Ther*. 2019 Jul;18(7):1185-1194. doi: 10.1158/1535-7163.MCT-18-0666. PMID: 31263027
329. Lubelski D, Xiao R, Mukherjee D, Ashley WW, Witham T, Brem H, Huang J, Wolfe SQ. Improving medical student recruitment to neurosurgery. *J Neurosurg*. 2019 Aug 9:1-7. doi: 10.3171/2019.5.JNS1987. Online ahead of print. PMID: 31398709

330. Impact of master's degree attainment upon academic career placement in neurosurgery. Khalafallah AM, Jimenez AE, Tamargo RJ, Witham T, Huang J, **Brem H**, Mukherjee D. Impact of master's degree attainment upon academic career placement in neurosurgery. *J Neurosurg.* 2019 Dec 6:1-9. doi: 10.3171/2019.9.JNS192346. Online ahead of print. PMID: 31812143
331. Wu A, Maxwell R, Xia Y, Cardarelli P, Oyasu M, Belcaid Z, Kim E, Hung A, Luksik AS, Garzon-Muvdi T, Jackson CM, Mathios D, Theodros D, Cogswell J, **Brem H**, Pardoll DM, Lim M. Combination anti-CXCR4 and anti-PD-1 immunotherapy provides survival benefit in glioblastoma through immune cell modulation of tumor microenvironment. *J Neurooncol.* 2019 Jun;143(2):241-249. doi: 10.1007/s11060-019-03172-5. Epub 2019 Apr 25. PMID: 31025274
332. Mathios D, Hwang T, Xia Y, Phallen J, Rui Y, See AP, Maxwell R, Belcaid Z, Casaos J, Burger PC, McDonald KL, Gallia GL, Cope L, Kai M, **Brem H**, Pardoll DM, Ha P, Green JJ, Velculescu VE, Bettagowda C, Park CK, Lim M. Genome-wide investigation of intragenic DNA methylation identifies ZMIZ1 gene as a prognostic marker in glioblastoma and multiple cancer types. *Int J Cancer.* 2019 Aug 2. doi: 10.1002/ijc.32587. [Epub ahead of print] PMID: 31373686.
333. Lubelski D, Xiao R, Mukherjee D, Ashley WW, Witham T, **Brem H**, Huang J, Wolfe SQ. Improving medical student recruitment to neurosurgery. *J Neurosurg.* 2019 Aug 9:1-7. doi: 10.3171/2019.5.JNS1987. [Epub ahead of print] PMID: 31398709.
334. Choi J, Rui Y, Kim J, Gorelick N, Wilson DR, Kozielski K, Mangraviti A, Sankey E, **Brem H**, Tyler B, Green JJ, Jackson EM. Nonviral polymeric nanoparticles for gene therapy in pediatric CNS malignancies. *Nanomedicine.* 2020 Jan;23:102115. doi: 10.1016/j.nano.2019.102115. Epub 2019 Oct 23. PMID: 31655205.
335. Han D, Serra R, Gorelick N, Fatima U, Eberhart CG, **Brem H**, Tyler B, Steckl AJ. Multi-layered core-sheath fiber membranes for controlled drug release in the local treatment of brain tumor. *Sci Rep.* 2019 Nov 29;9(1):17936. doi: 10.1038/s41598-019-54283-y. PMID: 31784666.
336. Khalafallah AM, Jimenez AE, Tamargo RJ, Witham T, Huang J, **Brem H**, Mukherjee D. Impact of master's degree attainment upon academic career placement in neurosurgery. *J Neurosurg.* 2019 Dec 6:1-9. doi: 10.3171/2019.9.JNS192346. [Epub ahead of print] PMID: 31812143.
337. Shay T, Belzberg M, Asemota AO, Mitchell KA, Wolff A, Santiago GF, Huang J, **Brem H**, Gordon CR. Risk of Complications in Primary Versus Revision-Type Cranioplasty. *J Craniofac Surg.* 2020 Jan 6. doi: 10.1097/SCS.0000000000006134. [Epub ahead of print]. PMID: 31917710.
338. El Demerdash N, Kedda J, Ram N, **Brem H**, Tyler B. Novel therapeutics for brain tumors: current practice and future prospects. *Expert Opin Drug Deliv.* 2020 Jan;17(1):9-21. doi: 10.1080/17425247.2019.1676227. PMID: 31971041.
339. Mitchell KA, Anderson WA, Shay T, Huang J, Luciano M, Suarez J, Manson P, **Brem H**, Gordon CR. First in-human experience with integration of wireless intracranial pressure monitoring device within a customized cranial implant. *Operative Neurosurgery* 2020. Jan 28 [Epub ahead of print]
340. Asemota AO, Ishii M, **Brem H**, Gallia GL. Geographic Variation in Costs of Transsphenoidal Pituitary Surgery in the United States. *World Neurosurg.* 2020 Mar 4. pii: S1878-8750(20)30420-4. doi: 10.1016/j.wneu.2020.02.145. PMID: 32145414.

341. Huq S, Khalafallah AM, **Brem H**, Huang J, Gordon CR, Mukherjee D. Introducing Medical Students to the Burgeoning Field of Neuroplastic Surgery. *J Craniofac Surg*. 2020 Mar 17. doi: 10.1097/SCS.0000000000006351. PMID: 32195837.
342. Khalafallah AM, Jimenez AE, Daniels M, Bydon A, Cohen AR, Tamargo RJ, Witham T, Huang J, **Brem H**, Mukherjee D. Educational Program Rankings Are Independently Associated With Residents' Academic Career Trajectory in Neurological Surgery. *J Surg Educ*. 2020 Apr 1. pii: S1931-7204(20)30070-2. doi: 10.1016/j.jsurg.2020.03.004. PMID: 32245716.
343. Mangraviti A, Volpin F, Cha J, Cunningham SI, Raje K, Brooke MJ, **Brem H**, Olivi A, Huang J, Tyler BM, Rege A. Intraoperative Laser Speckle Contrast Imaging For Real-Time Visualization of Cerebral Blood Flow in Cerebrovascular Surgery: Results From Pre-Clinical Studies. *Sci Rep*. 2020 May 6;10(1):7614. doi: 10.1038/s41598-020-64492-5. PMID: 32376983.
344. Khalafallah AM, Jimenez AE, Lee RP, Weingart JD, Theodore N, Cohen AR, Tamargo RJ, Huang J, **Brem H**, Mukherjee D. Impact of COVID-19 on an Academic Neurosurgery Department: The Johns Hopkins Experience. *World Neurosurg*. 2020 May 24:S1878-8750(20)31138-4. doi: 10.1016/j.wneu.2020.05.167. PMID: 32461176.
345. Jackson C, Choi J, Khalafallah AM, Price C, Bettegowda C, Lim M, Gallia G, Weingart J, **Brem H**, Mukherjee D. A Systematic Review and Meta-Analysis of Supratotal Versus Gross Total Resection for Glioblastoma. *J Neurooncol*. 2020 Jun 19. doi: 10.1007/s11060-020-03556-y. PMID: 32562247.
346. Huq S, Casaos J, Serra R, Peters M, Xia Y, Ding AS, Ehresman J, Kedda JN, Morales M, Gorelick NL, Zhao T, Ishida W, Perdomo-Pantoja A, Cecia A, Ji C, Suk I, Sidransky D, Brait M, **Brem H**, Skuli N, Tyler B. Repurposing the FDA-Approved Antiviral Drug Ribavirin as Targeted Therapy for Nasopharyngeal Carcinoma. *Mol Cancer Ther*. 2020 Jun 30:molcanther.0572.2019. doi: 10.1158/1535-7163.MCT-19-0572. PMID: 32606016.
347. Belzberg M, Mahapatra S, Perdomo-Pantoja A, Chavez F, Morrison K, Xiong KT, Gamo NJ, Restaino S, Thakor N, Yazdi Y, Iyer R, Tyler B, Theodore N, Luciano MG, **Brem H**, Groves M, Cohen AR, Manbachi A. Minimally Invasive Therapeutic Ultrasound: Ultrasound-guided Ultrasound Ablation in Neuro-Oncology. *Ultrasonics*. 2020 Jun 20;108:106210. doi: 10.1016/j.ultras.2020.106210. PMID: 32619834.
348. Bechtold R, Garlow B, Liu R, Tandon A, Szewc A, Zhu W, Musmanno O, Gorelick N, Suk I, Huang J, **Brem H**, Manbachi A, Coles G. Minimizing cotton ball retention in neurological procedures. Des Med Devices Conf (2020). 2020 Apr;2020:V001T06A006. doi: 10.1115/dmd2020-9042. Epub 2020 Jul 27. PMID: 35253016
349. Minimizing cotton retention in neurosurgical procedures: which imaging modality can help? Bechtold R, Tselepidakis N, Garlow B, Glaister S, Zhu W, Liu R, Szewc A, Tandon A, Buono Z, Pitingolo J, Madalo C, Ferrara I, Shale C, Benassi T, Belzberg M, Gorelick N, Hwang B, Molina CA, Coles G, Tyler B, Suk I, Huang J, **Brem H**, Manbachi A. Proc SPIE Int Soc Opt Eng. 2020 Feb;11317:1131704. doi: 10.1117/12.2548847. Epub 2020 Feb 28. PMID: 35350430
350. Khalafallah AM, Huq S, Jimenez AE, **Brem H**, Mukherjee D. Khalafallah AM, et al. The 5-factor modified frailty index: an effective predictor of mortality in brain tumor patients J Neurosurg. 2020 Aug 14:1-9. doi: 10.3171/2020.5.JNS20766. Online ahead of print. J Neurosurg. 2020. PMID: 32796147
351. Asemota AO, Ishii M, Brem H, Gallia GL. Geographic Variation in Costs of Transsphenoidal Pituitary Surgery in the United States. *World Neurosurg*. 2021 May;149:e1180-e1198. doi: 10.1016/j.wneu.2020.02.145. Epub 2020 Mar 4. PMID: 32145414
352. Garzon-Muvdi T, Maxwell R, Luksik A, Kessler R, Weingart J, Olivi A, Bettegowda C, Tamargo R, **Brem H**, Lim M. Garzon-Muvdi T, et al. Scalp Invasion by Atypical or Anaplastic Meningioma Is a Risk Factor for Development of Systemic Metastasis. *World Neurosurg*. 2020 Oct;142:e133-e139. doi: 10.1016/j.wneu.2020.06.148. Epub 2020 Jun 26. *World Neurosurg*. 2020. PMID: 32599198
353. Jimenez AE, Khalafallah AM, Huq S, Horowitz MA, Azmeh O, Lam S, Oliveira LAP, **Brem H**, Mukherjee D. Jimenez AE, et al. Predictors of Nonroutine Discharge Disposition Among Patients with Parasagittal/Parafalcine Meningioma *World Neurosurg*. 2020 Oct;142:e344-e349. doi: 10.1016/j.wneu.2020.06.239. Epub 2020 Jul 9. *World Neurosurg*. 2020. PMID: 32652275
354. Khalafallah AM, Jimenez AE, Romo CG, Kamson DO, Kleinberg L, Weingart J, **Brem H**, Grossman SA, Mukherjee D. Khalafallah AM, et al. Quantifying the utility of a multidisciplinary neuro-oncology tumor board *J Neurosurg*. 2020 Sep 18:1-6. doi: 10.3171/2020.5.JNS201299. Online ahead of print. J

- Neurosurg. 2020. PMID: 32947258
355. Khalafallah AM, Jimenez AE, Shah PP, **Brem H**, Mukherjee D. Khalafallah AM, et al. Effect of radiation therapy on overall survival following subtotal resection of adult pilocytic astrocytoma. *J Clin Neurosci*. 2020 Nov;81:340-345. doi: 10.1016/j.jocn.2020.10.020. Epub 2020 Oct 21. *J Clin Neurosci*. 2020. PMID: 33222942
356. Gallia GL, Holdhoff M, **Brem H**, Joshi AD, Hann CL, Bai RY, Staedtke V, Blakeley JO, Sengupta S, Jarrell TC, Wollett J, Szajna K, Helie N, Mattox AK, Ye X, Rudek MA, Riggins GJ., Mebendazole and temozolomide in patients with newly diagnosed high-grade gliomas: results of a phase 1 clinical trial, *Neurooncol Adv*. 2020 Nov 12;3(1):vdaa154. doi: 10.1093/noajnl/vdaa154. eCollection 2021 Jan-Dec. PMID: 33506200
357. Nabors LB, Portnow J, Ahluwalia M, Baehring J, **Brem H**, Brem S, Butowski N, Campian JL, Clark SW, Fabiano AJ, Forsyth P, Hattangadi-Gluth J, Holdhoff M, Horbinski C, Junck L, Kaley T, Kumthekar P, Loeffler JS, Mrugala MM, Nagpal S, Pandey M, Parney I, Peters K, Puduvalli VK, Robins I, Rockhill J, Rusthoven C, Shonka N, Shrieve DC, Swinnen LJ, Weiss S, Wen PY, Willmarth NE, Bergman MA, Darlow SD.Nabors LB, et al. Central Nervous System Cancers, Version 3.2020, NCCN Clinical Practice Guidelines in Oncology *J Natl Compr Canc Netw*. 2020 Nov 2;18(11):1537-1570. doi: 10.6004/jnccn.2020.0052. *J Natl Compr Canc Netw*. 2020. PMID: 33152694
358. Shay T, Belzberg M, Asemota AO, Mitchell KA, Wolff A, Santiago GF, Huang J, **Brem H**, Gordon CR. Risk of Complications in Primary Versus Revision-Type Cranioplasty. *J Craniofac Surg*. 2020 Mar/Apr;31(2):423-427. doi: 10.1097/SCS.00000000000006134. PMID: 31917710
359. Shay T, Mitchell KA, Belzberg M, Zelko I, Mahapatra S, Qian J, Mendoza L, Huang J, **Brem H**, Gordon C.Shay T, et al. Translucent Customized Cranial Implants Made of Clear Polymethylmethacrylate: An Early Outcome Analysis of 55 Consecutive Cranioplasty Cases *Ann Plast Surg*. 2020 Dec;85(6):e27-e36. doi: 10.1097/SAP.0000000000002441. *Ann Plast Surg*. 2020. PMID: 33170582
360. Mitchell KS, Zelko I, Shay T, Horen S, Williams A, Luciano M, Huang J, **Brem H**, Gordon CR. The Impact of Hydrocephalus Shunt Devices on Quality of Life. *J Craniofac Surg*. 2021 Jul-Aug 01;32(5):1746-1750. doi: 10.1097/SCS.0000000000007579. PMID: 34319679
361. Yang W, Rincon-Torroella J, Feghali J, Khalafallah AM, Ishida W, Perdomo-Pantoja A, Quiñones-Hinojosa A, Lim M, Gallia GL, Riggins GJ, Anderson WS, Lo SL, Rigamonti D, Tamargo RJ, Witham TF, Bydon A, Cohen AR, Jallo GI, Latremoliere A, Luciano MG, Mukherjee D, Olivi A, Qu L, Gokaslan ZL, Sciubba DM, Tyler B, **Brem H**, Huang J. Impact of international research fellows in neurosurgery: results from a single academic center. *J Neurosurg*. 2021 Jul 23;136(1):295-305. doi: 10.3171/2021.1.JNS203824. Print 2022 Jan 1. PMID: 34298505
362. Yeini E, Ofek P, Pozzi S, Albeck N, Ben-Shushan D, Tiram G, Golan S, Kleiner R, Sheinin R, Israeli Dangoor S, Reich-Zeliger S, Grossman R, Ram Z, **Brem H**, Hyde TM, Magod P, Friedmann-Morvinski D, Madi A, Satchi-Fainaro R. P-selectin axis plays a key role in microglia immunophenotype and glioblastoma progression. *Nat Commun*. 2021 Mar 26;12(1):1912. doi: 10.1038/s41467-021-22186-0. PMID: 33771989
363. Asemota AO, Ishii M, **Brem H**, Gallia GL., Letter: Commentary: Costs and Their Predictors in Transsphenoidal Pituitary Surgery, *Neurosurgery*. 2021 Feb 13:nyab027. doi: 10.1093/neuros/nyab027. PMID: 33582772
364. Medikonda R, Srivastava S, Kim T, Xia Y, Kim J, Jackson C, Weingart J, Mukherjee D, Bettegowda C, Gallia G, **Brem H**, Redmond K, Stearns V, Kleinberg L, Lim M., Development of new brain metastases in triple negative breast cancer, *J Neurooncol*. 2021 Apr;152(2):333-338. doi: 10.1007/s11060-021-03702-0
365. Huq S, Kannapadi NV, Casaos J, Lott T, Felder R, Serra R, Gorelick NL, Ruiz-Cardozo MA, Ding AS, Cecia A, Medikonda R, Ehresman J, **Brem H**, Skuli N, Tyler BM., Preclinical efficacy of ribavirin in SHH and group 3 medulloblastoma, *J Neurosurg Pediatr*. 2021 Feb 5:1-7. doi: 10.3171/2020.8.PEDS20561. PMID: 33545678
366. Jackson CM, Choi J, Routkewitch D, Pant A, Saleh L, Ye X, Caplan JM, Huang J, McDougall CG, Pardoll DM, **Brem H**, Tamargo RJ, Lim M., PD-1+ Monocytes Mediate Cerebral Vasospasm Following Subarachnoid Hemorrhage, *Neurosurgery*. 2021 Mar 15;88(4):855-863. doi: 10.1093/neuros/nyaa495. PMID: 33370819
367. Jimenez AE, Shah PP, Khalafallah AM, Huq S, Porras JL, Jackson CM, Gallia G, Bettegowda C,

- Weingart J, Suarez JI, **Brem H**, Mukherjee D. Patient-Specific Factors Drive Intensive Care Unit and Total Hospital Length of Stay in Operative Patients with Brain Tumor. *World Neurosurg.* 2021 Sep;153:e338-e348. doi: 10.1016/j.wneu.2021.06.114. Epub 2021 Jul 2. PMID: 34217859
368. Mitchell KS, Shay T, Huang J, **Brem H**, Manson P, Gordon CR., The Neuroplastic Surgery Fellows Experience: Where Tradition Meets Innovation, *J Craniofac Surg.* 2021 Jan-Feb 01;32(1):12-14. doi: 10.1097/SCS.0000000000007201. PMID: 33136790
369. Pinheiro L, Perdomo-Pantoja A, Casaos J, Huq S, Paldor I, Vigilar V, Mangraviti A, Wang Y, Witham TF, **Brem H**, Tyler B. Captopril inhibits Matrix Metalloproteinase-2 and extends survival as a temozolomide adjuvant in an intracranial gliosarcoma model. *Clin Neurol Neurosurg.* 2021 Aug;207:106771. doi: 10.1016/j.clineuro.2021.106771. Epub 2021 Jun 22. PMID: 34198223358.
370. Khalafallah AM, Jimenez AE, Camp S, Horowitz MA, Chiu I, Ryu D, Charewycz N, Vera L, Bhoopal M, Feghali J, Sharma M, Lubelski D, Cohen AR, Tamargo RJ, Witham T, Huang J, **Brem H**, Mukherjee D. Predictors of Academic Neurosurgical Career Trajectory among International Medical Graduates Training Within the United States. *Neurosurgery.* 2021 Aug 16;89(3):478-485. doi: 10.1093/neuros/nyab194. PMID: 34114014
371. Ben-Shalom N, Asemota AO, Beizberg M, Harnof S, Huang J, Lim M, **Brem H**, Gordon C. Cranioplasty With Customized Craniofacial Implants and Intraoperative Resizing for Single-Stage Reconstruction Following Oncologic Resection of Skull Neoplasms. *J Craniofac Surg.* 2022 Sep 1;33(6):1641-1647. doi: 10.1097/SCS.0000000000008541. Epub 2022 Mar 14. PMID: 35288504362.
372. Azad TD, Shah PP, Kannapadi NV, Rincon-Torroella J, Xia Y, Bernhardt LJ, Hansen LJ, Materi J, Raj D, Jackson CM, Mukherjee D, Gallia GL, Weingart J, Suarez JI, **Brem H**, Bettegowda C. Reexamining the Role of Postoperative ICU Admission for Patients Undergoing Elective Craniotomy: A Systematic Review. *Crit Care Med.* 2022 Sep 1;50(9):1380-1393. doi: 10.1097/CCM.0000000000005588. Epub 2022 Jun 10. PMID: 35686911
373. Alomari S, Lubelski D, Feghali J, **Brem H**, Witham T, Huang J. Impact of virtual vs. in-person interviews among neurosurgery residency applicants. *J Clin Neurosci.* 2022 Jul;101:63-66. doi: 10.1016/j.jocn.2022.05.005. Epub 2022 May 10. PMID: 35561432
374. Antar A, Feghali J, Yang W, Wicks EE, Sattari SA, Li S, Witham TF, **Brem H**, Huang J. Home Program Matching in Neurosurgical Residency Programs: A 7-Year Study. *World Neurosurg.* 2022 Aug;164:e772-e783. doi: 10.1016/j.wneu.2022.05.040. Epub 2022 May 17. PMID: 35595044
375. Mahapatra S, Balamurugan M, Chung K, Kuppoor V, Curry E, Aghabaglau F, Kaovasia TP, Acord M, Ainechi A, Kim JH, Tshey Y, Ghinda CD, Son JK, Pustavoitau A, Tyler B, Robinson SD, Theodore N, **Brem H**, Huang J, Manbachi A. Automatic detection of cotton balls during brain surgery: Where deep learning meets ultrasound imaging to tackle foreign objects. *Proc SPIE Int Soc Opt Eng.* 2021 Feb;11602:116021C. doi: 10.1117/12.2580887. Epub 2021 Feb 26. PMID: 35233128
376. Rincon-Torroella J, Rakovec M, Khalafallah AM, Liu A, Bettegowda A, Kut C, Rodriguez FJ, Weingart J, Luciano M, Olivi A, Jallo GI, **Brem H**, Mukherjee D, Lim M, Bettegowda C. Clinical features and surgical outcomes of intracranial and spinal cord subependymomas. *J Neurosurg.* 2022 Feb 11:1-12. doi: 10.3171/2021.12.JNS211643. Online ahead of print. PMID: 35148513
377. Serra R, Mangraviti A, Gorelick NL, Shapira-Furman T, Alomari S, Cecia A, Darjee N, **Brem H**, Rottenberg Y, Domb AJ, Tyler B. Combined intracranial Acriflavine, temozolomide and radiation extends survival in a rat glioma model. *Eur J Pharm Biopharm.* 2022 Jan;170:179-186. doi: 10.1016/j.ejpb.2021.12.011. Epub 2021 Dec 29. PMID: 34968646
378. Jimenez AE, Chakravarti S, Liu S, Wu E, Wei O, Shah PP, Nair S, Gendreau JL, Porras JL, Azad TD, Jackson CM, Gallia G, Bettegowda C, Weingart J, **Brem H**, Mukherjee D. Predicting High-Value Care Outcomes After Surgery for Non-Skull Base Meningiomas. *World Neurosurg.* 2022 Mar;159:e130-e138. doi: 10.1016/j.wneu.2021.12.010. Epub 2021 Dec 8. PMID: 34896348
379. Antar A, Feghali J, Wicks EE, Sattari SA, Li S, Witham TF, **Brem H**, Huang J. Which medical schools produce the most neurosurgery residents? An analysis of the 2014-2020 cohort. *J Neurosurg.* 2021 Nov 26:1-13. doi: 10.3171/2021.7.JNS211530. Online ahead of print. PMID: 34826816
380. Serra R, Zhao T, Huq S, Gorelick NL, Casaos J, Cecia A, Mangraviti A, Eberhart C, Bai R, Olivi A, **Brem H**, Jackson EM, Tyler B. Disulfiram and copper combination therapy targets NPL4, cancer stem cells and extends survival in a medulloblastoma model. *PLoS One.* 2021 Nov 3;16(11):e0251957. doi: 10.1371/journal.pone.0251957. eCollection 2021. PMID: 34731160
381. Medikonda R, Patel K, Jackson C, Saleh L, Srivastava S, Feghali J, Mohan A, Pant A, Jackson CM,

- Weingart J, Mukherjee D, Bettegowda C, Gallia GL, **Brem H**, Lim M. The safety and efficacy of dexamethasone in the perioperative management of glioma patients. *J Neurosurg.* 2021 Sep 24;136(4):1062-1069. doi: 10.3171/2021.4.JNS204127. Print 2022 Apr 1. PMID: 34560653
382. Choi J, Medikonda R, Saleh L, Kim T, Pant A, Srivastava S, Kim YH, Jackson C, Tong L, Routkewitch D, Jackson C, Mathios D, Zhao T, Cho H, **Brem H**, Lim M. Combination checkpoint therapy with anti-PD-1 and anti-BTLA results in a synergistic therapeutic effect against murine glioblastoma. *Oncimmunology.* 2021 Aug 29;10(1):1956142. doi: 10.1080/2162402X.2021.1956142. eCollection 2021. PMID: 34484870
383. Ding AS, Huq S, Casaos J, Raj D, Morales M, Zhao T, Kim T, Srivastava S, Pant A, Serra R, Gorelick NL, **Brem H**, Tyler B. Targeting of cyclin-dependent kinases in atypical teratoid rhabdoid tumors with multikinase inhibitor TG02. *J Neurosurg Pediatr.* 2021 Sep 3;1:1-10. doi: 10.3171/2021.5.PEDS20920. Online ahead of print. PMID: 34479190
384. Medikonda R, Choi J, Pant A, Saleh L, Routkewitch D, Tong L, Belcaid Z, Kim YH, Jackson CM, Jackson C, Mathios D, Xia Y, Shah PP, Patel K, Kim T, Srivastava S, Huq S, Ehresman J, Pennington Z, Tyler B, **Brem H**, Lim M. Synergy between glutamate modulation and anti-programmed cell death protein 1 immunotherapy for glioblastoma. *J Neurosurg.* 2021 Aug 13;136(2):379-388. doi: 10.3171/2021.1.JNS202482. Print 2022 Feb 1. PMID: 34388730
385. Azad TD, Shah PP, Kannapadi NV, Rincon-Torroella J, Xia Y, Bernhardt LJ, Hansen LJ, Materi J, Raj D, Jackson CM, Mukherjee D, Gallia GL, Weingart J, Suarez JI, **Brem H**, Bettegowda C. Reexamining the Role of Postoperative ICU Admission for Patients Undergoing Elective Craniotomy: A Systematic Review. *Crit Care Med.* 2022 Sep 1;50(9):1380-1393. doi: 10.1097/CCM.0000000000005588. Epub 2022 Jun 10. PMID: 35686911
386. Jimenez AE, Khalafallah AM, Botros D, Horowitz MA, Azmeh O, Lam S, Oliveira LAP, Chakravarti S, Liu S, Wu E, Wei O, Porras JL, Bettegowda C, Tamargo RJ, **Brem H**, Mukherjee D. The role of anticoagulation for superior sagittal sinus thrombosis following craniotomy for resection of parasagittal/parafalcine meningiomas. *J Neurooncol.* 2022 Jan;156(2):341-352. doi: 10.1007/s11060-021-03916-2. Epub 2021 Dec 2. PMID: 34855096
387. Alomari S, Kedda J, Malla AP, Pacis V, Anastasiadis P, Xu S, McFarland E, Sukhon L, Gallo B, Rincon-Torroella J, Ben-Shalom N, Ames HM, **Brem H**, Woodworth GF, Tyler B. Implementation of Minimally Invasive Brain Tumor Resection in Rodents for High Viability Tissue Collection. *J Vis Exp.* 2022 May 9;(183). doi: 10.3791/64048. PMID: 35604202
388. Feghali J, Antar A, Wicks EE, Sattari SA, Li S, Witham TF, **Brem H**, Huang J. Recruitment of women in neurosurgery: a 7-year quantitative analysis. *J Neurosurg.* 2022 Jun 21:1-10. doi: 10.3171/2022.4.JNS22410. Online ahead of print. PMID: 35901758
389. Belzberg M, Mitchell KA, Ben-Shalom N, Asemota AO, Wolff AY, Santiago GF, Shay T, Huang J, Manson PN, Brem H, Gordon CR. Cranioplasty Outcomes From 500 Consecutive Neuroplastic Surgery Patients. *J Craniofac Surg.* 2022 Sep 1;33(6):1648-1654. doi: 10.1097/SCS.0000000000008546. Epub 2022 Mar 4. PMID: 35245275
390. Botros D, Khalafallah AM, Huq S, Dux H, Oliveira LAP, Pellegrino R, Jackson C, Gallia GL, Bettegowda C, Lim M, Weingart J, **Brem H**, Mukherjee D. Predictors and Impact of Postoperative 30-Day Readmission in Glioblastoma. *Neurosurgery.* 2022 Sep 1;91(3):477-484. doi: 10.1227/neu.0000000000002063. Epub 2022 Jul 14. PMID: 35876679
391. Pozzi S, Scomparin A, Ben-Shushan D, Yeini E, Ofek P, Nahmad AD, Soffer S, Ionescu A, Ruggiero A, Barzel A, **Brem H**, Hyde TM, Barshack I, Sinha S, Ruppin E, Weiss T, Madi A, Perlson E, Slutsky I, Florindo HF, Satchi-Fainaro R. MCP-1/CCR2 axis inhibition sensitizes the brain microenvironment against melanoma brain metastasis progression. *JCI Insight.* 2022 Sep 8;7(17):e154804. doi: 10.1172/jci.insight.154804. PMID: 35980743
392. Abramson HG, Curry EJ, Mess G, Thombre R, Kempski-Leadingham KM, Mistry S, Somanathan S, Roy L, Abu-Bonsrah N, Coles G, Doloff JC, **Brem H**, Theodore N, Huang J and Manbach A (2022) Automatic detection of foreign body objects in neurosurgery using a deep learning approach on intraoperative ultrasound images: From animal models to first in-human testing. *Front. Surg.* 9:1040066. doi: 10.3389/fsurg.2022.1040066

393. Porras JL, Sahu M, Soberanis-Mukul R, Hernandez I, Winter J, Creighton FX, Vedula S, Gallia G, **Brem H**, Unberath M, Hager G, Taylor R, Ishii M (2023) Evaluating Feasibility of a Cooperative-Control Robotic Assistant for Endoscopic Endonasal Skull Base Surgery: A Preclinical Study. *J Neurol Surg B Skull Base* 2023; 84(S 01): S1-S344. DOI: 10.1055/s-0043-1762326
394. Ofek, P; Yeini, E; Arad, G; Danilevsky, A; Pozzi, S; Burgos L, Christian; I, Dangoor, S; Grossman, R; Ram, Z; Shomron, N; **Brem, H**; Hyde, T; Geiger, T; Satchi-Fainaro, R, Deoxyhypusine hydroxylase: a novel therapeutic target differentially expressed in short-term versus long-term survivors of glioblastoma, (2023) International Journal of Cancer, Ref.: IJC-22-1691.R2

Editorials, Reviews:

"Hurting Care, and Lives." Henry Brem and Benjamin S. Carson Sr.

The Washington Post, Washington, D.C.; Editorial Commentary, December 28, 2004, A-19.

Book Chapters, Monographs:

1. Brem H, Arensman R, and Folkman J. "Inhibition of tumor angiogenesis by a diffusible factor from cartilage." In *Extracellular Matrix Influences on Gene Expression*, H. Slavkin, Editor, (Academic Press, New York), 1975, pp. 767-772.
2. Brem H. "Inhibition of neovascularization by an extract from cartilage." In *New Research in Diabetic Retinopathy*, A. Patz, Editor, (Juvenile Diabetes Foundation, N.Y.), 1978, pp. 67-88.
3. Brem H. "Control of neovascularization." In *Diabetic Renal- Retinal Syndrome*, E.A. Friedman and F.A. L'Esperance, Editors, (Grune & Stratton, N.Y.), 1980, pp. 291-294.
4. Brem H. "The Angiogenesis factor in ocular neovascularization." In *Diabetic Renal-Retinal Syndrome*, Vol. II, Prevention and Management. E.A. Friedman and F.A. L'Esperance, Editors, (Grune and Stratton, N.Y.), 1982, pp. 151-154.
5. Brem H "Supratentorial astrocytoma." In *Current Therapy in Neurological Surgery*, D.M. Long, Editor, (B.C. Decker, Publishers Inc., Toronto-Philadelph) 1986, pp. 27-29.
6. Brem H. "Glioma." In *Current Therapy in Internal Medicine*, T.M. Bayless, M.C. Brain, R.M. Cherniack, Editors, (B.C. Decker, Inc., Philadelphia), 1987, pp 1302-1304.
7. Brem H. "Glioma." In *Current Therapy in Neurologic Disease-2*, R.T. Johnson, Editor, (B.C. Decker, Inc., Toronto), 1987, pp. 202-204.
8. Brem H, Tamargo R, Guerin C, Brem S, and Brem H. "Brain tumor angiogenesis." In *Advances in Neuro-oncology*, P.L. Kornblith, Editor, (Futura Publishing Company, Inc., Mount Kisco, NY), 1988, pp. 89-101.
9. Hanley DF, Brem H, Moses H III, Rogers MC. "Elevated intracranial pressure." In *Principles and Practice of Medicine*, Harvey et al, Editors, (Appleton & Lange, Norwalk, CT.), XXII Edition, 1988, pp 253-258.
10. Brem H, Grossman S, and Hanley DF. "Intracranial masses." In *Principles and Practice of Medicine*, Harvey et al, Editors, (Appleton & Lange, Norwalk, CT.), XXII Edition, 1988, pp. 1052-1057.
11. Brem H. "Malignant glioma." In *Current Therapy in Neurological Surgery-2*. D.M. Long, Editor, (B.C. Decker, Inc., Philadelphia-Toronto), 1989, pp. 43-45.
12. Chasin M, Domb A, Ron E, Mathiowitz E, Leong K, Laurencin C, Brem H, Grossman S, and Langer R. "Polyanhydrides as drug delivery systems." In *Biodegradable Polymers as Drug Delivery Systems*, Mark Chasin and Robert Langer, Editors, (Marcel Dekker, Inc., New York), 1990, pp. 43-70.
13. Brem H. "Controlled delivery to the brain." In *Targeting of Drugs: Optimization Strategies*, G. Gregoriadis, Editor, (Plenum Press, N.Y.), 1990, pp. 155-163.
14. Olivi A, Domb A, Lenartz D, Tamargo R, Brem H. "Interstitial chemotherapy with drug impregnated polymer implants to treat brain tumors: Pre-clinical and clinical studies." In *Neuro-Oncology*, P. Paoletti, K. Takakura, M.D. Walker, G. Butti, S. Pezzotta, Editors, (Kluwer Academic Publishers, Dordrecht, The Netherlands), 1991, pp. 221-223.
15. Kennedy D, Brem H, and Zinreich J. "Transsphenoidal Pituitary Surgery." In *Skull Base Tumors*, D.M.

- Long, editor, (Blackwell Scientific, Philadelphia), 1992, pp. 149-173.
16. Olivi A, Brem RF, McPherson R, Brem H. "Brain tumors in Pregnancy." In Neurological Complications of Pregnancy. B. Stern, Editor, (Futura Publishing Co., Mount Kisco, NY), 1992, pp 85-105.
17. Guerin C, Tamargo RJ, Olivi A, Brem H. "Brain tumor angiogenesis: Drug delivery and new inhibitors." In Angiogenesis in Health and Diseases, M. E. Maragoudakis, Editor, (Plenum Press, New York), 1992, pp. 265-274.
18. Weingart J and Brem H. "Brain tumors: Diagnosis and surgical management." In Current Therapy in Oncology, J. E. Niederhuber, Editor, Mosby Year-book, Inc. (B.C. Decker, Inc., Philadelphia-Toronto), 1993, pp 538-541.
19. Brem H, Tamargo RJ, and Olivi A. "Delivery of drugs to the brain by use of a sustained-release polyanhydride polymer system." In New Technologies and Concepts for Reducing Drug Toxicities, Harry Salem and Steven I. Baskin, Editors, (CRC Press, Boca Raton, Florida), 1993, pp 33-39.
20. Walter KA, Brem H. "Polymers as controlled drug delivery systems for the brain." In Cerebral Revascularisation, Eugene P. Bernstein, Allan D. Callow, Andrew N. Nicolaides, Edward G. Shifrin, editors, (Med-Orion Publishing Company, Sunland, California), 1993, pp. 237-246.
21. Olivi A, Brem, H. "Interstitial chemotherapy with sustained-release polymer systems for the treatment of malignant gliomas." In Recent Results in Cancer Research, Vol. 135, Uwe Schlegel, editor, (Springer Verlag, Amsterdam), 1994, pp 149-154.
22. Brem H, Walter KA, Tamargo RJ, Olivi A, Langer RS. "Drug Delivery to the Brain." In Polymer Site-Specific Pharmacotherapy, Abraham J Domb, Editor, (John Wiley & Sons, Ltd., England), 1994, pp 117-139.
23. Tamargo RJ, Langer R, Brem H. "Interstitial drug delivery to the central nervous system using controlled release polymers: chemotherapy for brain tumor." In Providing Pharmacological Access to the Brain, (a volume of Methods in Neurosciences) Thomas R. Flanagan, Dwaine F. Emerich and Shelley R. Winn, Editors, (Academic Press, Inc., Orlando, FL), 1994, Vol.21, pp. 135-149.
24. Sipos EP, Brem H. "Angiogenesis in nervous system tumors." In Cancer of the Nervous System (Basic Science Section), Peter McL. Black and Jay S. Loeffler, Editors, (Blackwell Scientific Publications, Inc. Cambridge, Massachusetts), 1996, pp 813-826.
25. Weingart JD, Laterra J, Brem H. "Growth factors and angiogenesis." In Bailliere's Clinical Neurology/Cerebral Gliomas, WKA Yung, editor, (Bailliere Tindall, London), 1996, pp 307-318.
26. Storm PB, Brem H. "The treatment of brain tumors with drug-impregnated biodegradable polymers." In, Advances in Neuro-Oncology, Vol. II. Paul Kornblith and Michael Walker, editors, (Futura Publishing Co., Inc., Armonk, N.Y.), 1997, pp. 435-446.
27. Sills AK, Sipos EP, Laterra J, Brem H. "Angiogenesis in central nervous system tumors." In Advances in Neuro-Oncology, Vol. II. Paul Kornblith and Michael Walker, editors, (Futura Publishing Co., Inc., Armonk, N.Y.), 1997, pp. 81-96.
28. Anderson RC, Ewend ME, Brem H. "Interstitial chemotherapy: Potential for use in CNS metastases." In Advanced Techniques in Central Nervous System Metastases, Editor, Robert J. Maciunas, 1998, pp. 177-194.
29. Watts M, Brem H. "Neurosurgery." In Fundamentals of Surgery, Editor, John E. Niederhuber, (Appleton & Lange, Stamford, CT.), 1998, Chapter 43, pp 721-739.
30. Thompson RC, Brem H. "Treatment of gliomas using polymer-drug delivery." In The Gliomas, Editors, Charles B. Wilson and Mitchel S. Berger, (W.B.Saunders Co., Cambridge, MA.), 1999, Chapter 46, pp 555-563.
31. Burke M, Langer R, Brem H. "Drug delivery to the central nervous system." In The Encyclopedia of Controlled Drug Delivery, Editors Edith Mathiowitz, (John Wiley & Sons, Inc. New York), 1999, pp 184-212.
32. Weingart J, Rhines L, Brem H. "Intratumoral chemotherapy." In Essential Neuro-Oncology, Editors, Mark Bernstein and Mitchel S. Berger, (Thieme Publishers, New York), 2000, pp 240-248.
33. Long DM, Brem H, Benn Debba M. "Neurosurgery." In Evidence-Based Surgery, Editors, Toby Gordon and John L. Cameron, (B.C. Decker Inc, Ontario, Canada), 2000, pp.629-642.
34. Davis JD, Vanier V, Brem H. "Slow-release polymers for chemotherapy." In Neural Prostheses, Editor, Robert J. Maciunas, (AANS Park Ridge, IL), 2000, Chapter 9, pp 157-183.
35. Rhines LD, Ewend MG, Brem H. "Drug delivery and angiogenesis inhibition in the treatment of brain tumors. In Tumor Angiogenesis and Microcirculation, Editors, Drs. Emile Voest and Patricia A.D'Amore, (Marcel Dekker, Inc, New York, NY), 2001, Chapter 22, pp.361-374.
36. DiMeco F, Petrangolini G, Rizzo R, Olivi A, Brem H. "Polimeri biodegradabili e rilascio locale di

- chemioterapici." In *La Terapia Dei Tumori Cerebrali Maligni dell'Adulto e del Bambino*, Editor, A. Sghirlanzoni, A. Boiardi, (Springer-Verlag Italia Srl, Milano, Italia), 2002, pp 139-145.
37. Laterra J, Brem H. "Primary brain tumors in adults." In *Diseases of the Nervous System: Clinical Neuroscience and Therapeutic Principles*, 3rd Edition, Editors, Arthur Asbury, Ian McDonald, Guy McKhann, Peter Goadsby, Justin McArthur, (Cambridge University Press,) Cambridge, UK.,(Chap 87) 2002, pp. 1431-1447.
38. DiMeco F, Brem H, Weingart J, Olivi A. "Gliadel™ A new method for the treatment of malignant brain tumors." In *Drug Delivery Systems in Cancer Therapy*, editor, Dennis Brown, (Humana Press Inc., Totowa, NJ), 2003, pp 215-227.
39. Brem H, Sawaya R. "Brain tumors: General considerations." In *Youmans Neurological Surgery* 5th Edition, (Vol.I editors, Brem, Sawaya.) H. Richard Winn, editor, (Saunders, Philadelphia, PA.), 2004, pp 659-660.
40. Weingart J, Brem H. "Basic principles of cranial surgery for brain tumors." In *Youmans Neurological Surgery* 5th Edition, (Vol. editors, Brem, Sawaya). H. Richard Winn, editor, (Saunders, Philadelphia, PA.), 2004, pp 899-907.
41. Lesniak M, Frazier J, Brem H. "Targeting drugs to tumors of the Central Nervous System." In *Contemporary Cancer Research: Brain Tumors*, editor, F. Ali-Osman (Humana Press, Totowa, NJ), 2004, Chapter 18, pp 343-358.
42. Wang P and Brem H. "Neurosurgical applications for polymeric drug delivery systems." In *Progress in Neurological Surgery*, Series Editor: L.D.Lunsford. Vol 18, *Principles of Molecular Neurosurgery Volume* Editors: A. Freese, F.A. Simeone, P. Leone, C. Janson. (Karger Publishers, Switzerland), 2005, pp. 458-498.
43. Khalessi A, Wang P, Brem H., Langer R. "Treatment of malignant brain tumors with controlled-release local-delivery polymers." In *Polymeric Drug Delivery Systems*, Editor, Glen S. Kwon, (Marcel Dekker, Inc., New York), *Drugs and the Pharmaceutical Sciences*, 2005, Vol 148, Chapter 8, pp 323-380.
44. Haque RM, Amundson E, Dorsi M, Brem H. "Interstitial Chemotherapy and Polymer Drug Delivery" In: *Handbook of Brain Tumor and Chemotherapy*, Editor, Herbert B. Newton, (Elsevier Inc, The Netherlands), 2006, Chapter 19, pp 274-294.
45. Weingart JD, McGirk MJ, Brem H. "High Grade Astrocytoma." In *Neuro-Oncology of CNS Tumors*, Editors JC Tonn, M, Westphal, J Rutka, S Grossman, (Springer-Verlag, Heidelberg, Germany), 2006, Chapter 6, pp 127-138.
46. Bohan EM, Gallia G, Brem H. "Brain Tumors." In: *Neuroscience Nursing-Spectrum of Care*, 3rd Edition, Editor, E. Barker, (Mosby, Inc., St. Louis, Missouri), 2008, pp. 215-248.
47. Brem H, Weingart JD, Kunwar S. "Intratumoral Therapy." In *Neuro-Oncology: The Essentials*, 2nd Edition, Editors: Mark Bernstein and Mitchel Berger (Thieme Medical Publishers, Inc., New York, NY),. 2008
48. Brem H, Chiocca EA, Sawaya R. "Brain Tumors: General Considerations". In *Youmans Textbook of Neurological Surgery*-6th Edition,(Vol. 2 editors, Brem, Sawaya and Chiocca) H. Richard Winn, editor, (Saunders, Philadelphia, PA.). 2011, pp 1075-1076.
49. Brem H, Weingart. "Basic Principles of Cranial Surgery for Brain Tumors". In *Youmans Textbook of Neurological Surgery*-6th Edition,(Vol. 2 editors, Brem, Sawaya and Chiocca) H. Richard Winn, editor, (Saunders, Philadelphia, PA.). 2011, pp 1261-1266.
50. Quinones-Hinojosa A, Kosztowski T, Brem H. "Malignant Gliomas: Anaplastic Astrocytoma, Glioblastoma Multiforme, Gliosarcoma". In *Youmans Textbook of Neurological Surgery*-6th Edition,(Vol. 2 editors, Brem, Sawaya and Chiocca) H. Richard Winn, editor, (Saunders, Philadelphia, PA.). 2011, pp 1327-1340.
51. Brem H, Weingart JD, Kunwar S, " Intratumoral Chemotherapy." In *Neuro-Oncology: The Essentials*, 3rd Edition, Editors: Mark Bernstein and Mitchel Berger (Thieme Medical Publishers, Inc., New York, NY),. 2014, pp 192-202.
52. Uribe R, Brem H, Jallo G "Ectopic Occurrence of Craniopharyngiomas." In *Craniopharyngiomas: A Comprehensive Guide to Diagnosis, Treatment and Outcome*, Editors Tyler Kenning and James J. Evans (Elsevier Academic Press), 2015, pp 501-510.
53. Paldor I, Chaichana KL, Brem H, Tyler B. "Targeted Local Therapy for the Treatment of Intracranial High Grade Gliomas." In *Intracranial Gliomas Part III - Innovative Treatment Modalities*. Editors, Mikhail F. Chernov (Tokyo, Japan), Yoshihiro Muragaki (Tokyo, Japan), Santosh Kesari (La Jolla, CA), and Ian E. McCutcheon (Houston, TX). (Karger Publishers). 2018;32:159-171. doi: 10.1159/000469688. PMID: 29990982.
54. AlMefty K, Chiocca AE, Grossman R, Ram Z, Sawaya R, Brem H, and Lonser R. An Introduction to the Neuro-oncology Section and Controversies in Neuro-Oncology. In *Youmans Textbook of Neurological*

- Surgery-7th Edition. In Progress
55. Gorelick N, Jackson E, Tyler B, Brem H. Interstitial Chemotherapy and Polymer-Drug Delivery. In: Newton HB, ed. *Handbook of Brain Tumor Chemotherapy, Molecular Therapeutics, and Immunotherapy*, Second Edition. San Diego: Academic Press, 2018:155-162.
56. Tyler B, Pradilla G, Hadelsberg U, Bow H, Brem H. Treatment of Brain Tumors. Invited Book Chapter for Focal Controlled Drug Delivery, *Advances in Delivery Science and Technology*, Eds. Abraham Domb and Wahid Khan, Springer, 2014.
57. Serra R, Huq S, Brem H, Tyler B, Pharmacokinetics of Polymeric Drug Delivery. In , editors: *Nervous System Drug Delivery*, UK: Academic Press, 2019, pp. 91-110.
58. E. Antonio Chiocca, Manmeet S. Ahluwalia, Tracy T. Batchelor, Francesco Dimeco, Linda M. Liau, Russell R. Lonser, Michael W. McDermott, Zvi Ram, Henry Brem, and Raymond Sawya, Youmans sections VI-VIII, Elsavier, Section VI; Overview and Controversies, 2022. pp. 887912

Books:

Guest Editor, Special Edition: Implant Approach to Chemotherapy, (JNO) 1995.

Section Editor, Youmans Textbook of Neurological Surgery-5th Edition, 2004.

Section Editor, Youmans Textbook of Neurological Surgery-6th Edition, 2011

Section Editor, Youmans Textbook of Neurological Surgery-7th Edition, in progress

Other media (films, videos, CD-ROMSs, slide sets):

<http://www.hopkinsmedicine.org/news/audio/podcasts/BremPod.html>

http://www.hopkinsmedicine.org/neurology_neurosurgery/video_gallery/brem-carlos-luceno-brain-tumor.html

http://www.hopkinsmedicine.org/neurology_neurosurgery/news/videos/brem-neurosurgery-dept-video.html

<http://www.npr.org/blogs/health/2011/01/10/132810638/how-neurosurgeons-size-up-brain-injuries-like-giffords>

http://www.pbs.org/newshour/bb/health/jan-june11/brain_01-17.html#

<http://webcast.jhu.edu/mediasite/Viewer/?peid=b31f3529438344cbab4cf0af5800c22a>

Part 1 <http://www.youtube.com/watch?v=Q3QIdGXIkny&feature=related>

Part 2 <http://www.youtube.com/watch?v=huihBDTcd2s>

http://www.hopkinsmedicine.org/neurology_neurosurgery/news/videos/brem-new-brain-tumor-therapies.html

<http://webcast.jhu.edu/mediasite/Viewer/?peid=f5f4fd8ca9fc422babcbba667374b000b1d>

<http://webcast.jhu.edu/mediasite/Viewer/?peid=aa0933bd17de42c4a967b0a5a9aa4299>

<http://www.youtube.com/watch?v=CvLHY9ptllg&feature=plcp>

<http://www.youtube.com/watch?v=RuA5EZkeW7I>

http://www.youtube.com/watch?v=z5O_PNHQj8U

<http://ecancer.org/video/4582/interstitial-drug-delivery-to-brain-tumours.php>

Inventions, Patents, Copyrights (pending, awarded)**Patents:**

Controlled Local Delivery of Chemotherapeutic Agents for Treating Solid Tumors.

Henry Brem, Robert S. Langer, Abraham J. Domb

Japanese Patent Application No. 8-506742 (August 2, 1995)

U.S. Patent Number: 5,626,862 Date: May 6, 1997

U.S. Patent Number: 5,651,986 Date: July 29, 1997

U.S. Patent Number: 5,846,565 Date: Dec 8, 1998

European Patent No: 0,774,964A: AT,BE,CH,DE,DK,ES,FR,GB,GR,IE,IT, LI,LU,MC,NL,PT,SE

Cytokine Enhanced Immunotherapy for Brain Tumors.

Henry Brem, Drew M. Pardoll, Reid C. Thompson, Elizabeth M. Jaffee, Kam W. Leong, Matthew G. Ewend
JH 100 (DM3026) USSN 08/731,597 Publication # EP0930892 A1, July 28, 1999

Antibiotic Composition for Inhibition of Angiogenesis.

Henry Brem, Rafael J. Tamargo, Robert A. Bok

U.S. Patent Number: 6,482,810 B1 Date: Nov 19, 2002

Vitamin D₃ Analog Loaded Polymer Formulations for Cancer and Neurogenerative Disorders.

Martin Burke, Maria-Christina White, Jae Kyoo Lee, Mark C. Watts, Betty M. Tyler, Gary H. Posner,
Henry Brem.

USSN Application No. 12/165,036 Filing Date: 6/30/2008

Publication No.: US-2008-0260834-A1 Pub date: 10/23/2008

Intracellular Delivery of Anionic Anti-cancer Drugs with Cationic Polymers.

D. Berry, G. Anderson, R Langer, B Tyler, H. Brem. MIT Case No. 11598

Combination of Local Temozolomide with Local BCNU

V. Renard Recinos, B. Tyler, S. Brem Sunshine, H. Brem.

USSN Application No. 13/163223 Filing Date 6/17/2011

Patent # 8895597 Published November 25, 2014

Use of Adjuvant Focused Radiation Including Stereotactic Radiosurgery for Augmenting Immune Based Therapies Against Neoplasms. PCT/US2012/043124 filed 19 June 2012.

Intraoperatively Placed Markers for Post-surgical Imaging

M. Lim, H. Brem, B.Tyler, J. Liauw, S. Lo

Local Delivery Forms of Acriflavine for Treating Tumors

Brem H, Mangraviti A, Olivi A, Tyler B ,Raghavan T.

USSN 15/549,547; Filing date 08/08/2017

JHTT Ref.: C13409_P13409-03; Our Ref.: JHU C 13409 (095238/00115)

Flexible Control and Guidance of Minimally Invasive Focused Ultrasound

Manbachi A, Siewerdsen J, Ellens N, Zhang X, Belzberg M, Cohen A, Brem H.

USSN 16/489,423; Filing date 08/28/2019; PCT/US2018/020159

JHU Ref.: C14589_P14589-03

Combination of Immunotherapy with Local Chemotherapy for the Treatment of Malignancies

Dimitrios M, Tyler B, Pardoll D, Brem H, Lim M

USSN 15/136,149; filing date 04/22/2016; 210473-9079US02.P13490-03

JHU REF: C13490

Extramural Sponsorships (current, pending, previous):***GRANTS – Current:***4/01/17 – 3/31/22 **1R01CA204968-01**

“Targeted Delivery of Brain Penetrating DNA Nanoparticles To Brain Tumors”
Total DC: \$412,175
Role: Co-Investigator Effort: 1.6% P.I. Justin Hanes

4/1/17-3/31/18 **NIH 5R01CA164789-03**

“Brain Tumor-Penetrating Nanoparticle Delivery with MR-Guided Focused Ultrasound”
JHU Total DC: \$1,250,000
Role: Co-P.I. Effort: 5% P.I. Richard Price (UVA)

5/1/04-6/30/17 **NIH 5T32EB003383-12**

“Training Program in Neuroengineering”
Total Cost \$4,053,377
Role: Participating Faculty Effort 0% P.I. Xiaoqin Wang

5/01/97 – 4/30/18 **NCI 5P30CA006973-46**

NIH/NCI "Regional Oncology Research Center Grant"
Total Cost \$4,318,066
Role: Program Leader P.I. William Nelson

GRANTS-Pending***GRANTS-Previous***

9/19/90-4/30/95 “Controlled Release Polymers for Brain Tumors”

NCI/NCDDG 2 U19 CA52857

TDC: \$4,126,592
Role: P.I. Effort 19%

9/19/95-4/30/00 “Controlled Release Polymers for Brain Tumors”

NCI/NCDDG 2 U19 CA52857

TDC: \$2,189,021
Role: P.I. Effort 19%

9/19/00-4/30/06 "Controlled Release Polymers for Brain Tumors,"

NIH, NCI, National Cooperative Drug Discovery Group. UO1 CA52857

TDC: \$4,488,080
Role: P.I. Effort 19%

7/1/91-5/31/95 "The Physiologic Imaging Human Brain Tumors"

NIH, NCI, RO1-CA54112

TDC: \$630,028

	Role: Co-investigator Effort 1% P.I.:R. Nick Bryan
6/10/92-12/31/03	"Research Training in Oncology Imaging" NIH, NCI, T32 CA09630 NCI National Research Service Award Total DC: \$559,478 Role: Training Faculty Effort 5% P.I.: Z. Bhujwalla
7/1/93-6/30/96	"Vascular Biology of Brain Tumors" Feasibility Grant for Brain Tumor Research Center NIH, NCI, P20-CA60172 TDC: \$891,428 Role: P.I. Effort 25%
3/21/94-12/31/97 (1 st Cycle)	"New Approaches to Brain Tumor Therapy CNS Consortium" NIH, NCI, UO1 CA62474 TDC: \$307,540 Role: P.I. Effort 10%
3/21/98-12/31/03 (2 nd Cycle)	"New Approaches to Brain Tumor Therapy CNS Consortium," NIH, NCI, UO1 CA62474 TDC: \$479,807 Role: P.I. Effort 9%
5/18/04-12/31/08 (3 rd cycle)	"New Approaches to Brain Tumor Therapy CNS Consortium" NIH, NCI, UO1 CA62474 Total Project DC: \$483,133 Role: P.I. Effort 5%
3/21/94-12/31/97 (1 st Cycle)	"New Approaches to Brain Tumor Therapy CNS Consortium" NIH, NCI, UO1 CA62475 Total DC: \$694,614 Role: Co-P.I. Effort 10% P.I.: Stuart Grossman
3/21/98-12/31/02 (2 nd cycle)	"New Approaches to Brain Tumor Therapy CNS Consortium," NIH, NCI, UO1 CA62475 TDC: \$1,780,451 Role: Co- P.I. Effort 10% P.I.: Stuart Grossman
5/18/04-12/31/08 (3 rd cycle)	"New Approaches to Brain Tumor Therapy CNS Consortium," NIH, NCI, UO1 CA62475 TDC: \$2,573,487 Role: Co- P.I. Effort 5% P.I.: Stuart Grossman
9/1/94-8/31/99	"Molecular Biomarkers in the Classification of Gliomas" NIH, NCI UO1 CA64928 TDC: \$804,932 Role: Co-investigator Effort 5% P.I.: Roy C. Levitt
9/1/99-6/30/04 (1st cycle)	"Microchip Drug Delivery System." (MIT P.I.: Robert Langer) NIH, R24 AI-47739 JHU TDC: \$415,096 Role: Co-investigator Effort 5% P.I.: Henry Brem (JHU)
9/1/00-8/31/03	"Non Viral Polymeric Vectors for Treating Brain Tumors Israel Binational Science Foundation (BSF) JHU Total DC: \$24,000

	Role: Co-P.I.: Effort: 5% P.I.: Abraham Domb (Israel)
5/1/05-4/30/07 (1st cycle)	"Enhancement of Brain Tumor Immunotherapy by Fas-L RNAi" NIH 1 R21 CA112148 TDC: \$200,000 Role: Co-investigator Effort 2% P.I.: Alessandro Olivi
2008 - 2011	"Enhancement of Brain Tumor Immunotherapy by Fas-L RNAi" NIH 1 R21 CA112148 TDC: \$500,000 Role: Co-investigator Effort 2% P.I.: Alessandro Olivi
7/1/08-6/30/12	"Efficacy of Temozolomide for the Treatment of Malignant Glioma" American Cancer Society TDC.: \$589,313 Role: Co-Investigator Effort 1% P.I.: Betty Tyler
8/1/07-7/31/12	NIH 9 RO1 EB006365-06 (Formerly RO1A1047739-06) (MIT, Robert Langer). "Microchip Drug Delivery System" (JHU) TDC: \$414,636 Role: (Subcontract, Brem, P.I.) Effort: 5%
1987 - 2013	"Research Training in Neuro-Oncology" NIH/NCI National Research Service Award, T32 CA09574 Total Project DC: \$1,318,370 Role: Co-P.I. Effort 1% P.I.: Stuart Grossman
5/1/97-4/30/14	"Regional Oncology Research Center Grant" NCI 5P30CA06973-50S1 Total DC: \$3,848,362 Role: Program Leader Effort 3% P.I. William Nelson
9/1/10-8/31/14	"Modified Pectin and High Intensity Focused Ultrasound for Non Invasive Brain Cancer Gene Therapy" Israel Binational Science Foundation (BSF) JHU Total DC: \$22,425 Role: Co-P.I.: Effort: 3% P.I.: Joseph Kost (Israel)
2011 - 2015	"Translational Research Partners Program" The Wallace H. Coulter Foundation Total DC: \$5,000,000 Role: Co-P.I. Effort: 0% P.I. Elliot McVeigh
5/1/04-6/30/15	NIH 5T32EB003383-10 "Training Program in Neuroengineering" Total Cost \$3,528,005 Role: Participating Faculty Effort 0% P.I. Nitish Thakor
4/1/15 – 3/31/17	"Multimodal peptide-containing biodegradable nanoparticles for Glioblastoma" Allegheny Health Network-Johns Hopkins Cancer Research Fund Total DC: \$200,000 Role: Co-P.I. Effort: 5% P.I. Aleksander S. Popel
2011 – 2016	"Subependymoma and Ependymoma Program Project Grant Total DC: \$2,500,000

Role: Co-P.I.

Effort: 5%

P.I. Michael Lim

9/1/10 - 8/10/17

"Postdoctoral Training Program in Nanotechnology for Cancer Medicine"

NIH 5R25CA153952-07

Total Cost: \$2,315,154

Role: Participating Faculty Effort 0%

P.I. Denis Wirtz

CONTRACTS***Previous:***

1986 - 1991

Nova Pharmaceutical Corp

"Development of Bioerodible Polyanhydride Polymers for Sustained Release of Chemotherapeutic Agents in the Brain"

Nova Pharmaceutical Corporation Grant to Develop Total Period: 4/1/87 – 9/30/88

DC: \$208,015 Effort: 15% Role: P.I.

"Clinical Trial: Protocol NPC #8802: A Double Blind, Placebo-Controlled Study of BCNU Delivered from Gliadel, a Biodegradable Surgically Implanted Polymer for the Treatment of Recurrent, Malignant Glioma"

Nova Pharmaceutical Corp Total Period: 3/1/89 – 9/1/90

DC: \$20,470 Effort 1% Role: P.I.

"Steroids in Gliadel to Treat Brain Edema" Safety & Efficacy Studies with VXZ Carcinoma in the Rabbit, Quantitative HPLC Distribution Studies, and Dosing Studies"

Nova Pharmaceutical Corp Total Period: 7/1/89 – 6/30/90

DC: \$120,489 Effort 10% Role: P.I.

"Clinical Trial: NPC Protocol #9003 Interstitial Chemotherapy for Malignant Glioma: A Pilot Study to examine the safety of Gliadel Placed at the Time of First Surgery"

Nova Pharmaceutical Corp Total Period: 7/1/90 – 7/31/91

DC: \$25,000 Effort 1% Role: P.I.

"Steroids in Gliadel to Treat Brain Edema" Efficacy and Drug Distribution of Dexamethasone and Triamcinolone from Gliadel in the Rat 9L Gliosarcoma Model"

Nova Pharmaceutical Corp Total Period: 9/1/89 – 10/31/90

DC: \$84,395 Effort 5% Role: P.I.

"Preclinical Protocol to Evaluate Corticosteroids Released from Gliadel"

Nova Pharmaceutical Corp Total Period: 11/1/89 – 12/31/90

DC: \$84,187 Effort 5% Role: P.I.

"Steroids in Gliadel to Treat Brain Edema"

Nova Pharmaceutical Corp Total Period: 9/1/90 – 8/31/91

DC: \$89,884 Effort 5% Role: P.I.

"Steroids in Gliadel to Treat Brain Edema"

Nova Pharmaceutical Corp Total Period: 11/1/90 – 4/30/91

DC: \$70,349 Effort 5% Role: P.I.

7/1/89-6/30/91

"Biocompatibility of New Controlled Release Polymers in Rabbit & Rat in-vivo model"

Fidia Research Laboratories, Terme, Italy.

DC: \$72,646 Effort 2% Role: P.I.

2004-2005	CytoDome, Inc			
	Project 1; "Ultrasound Delivery System with Systemic BCNU in the 9L Rat Flank Model"	Rat	Total Period: 3/1/04 - 4/15/04	
	Total DC: \$4,991	Effort 3%	Role: P.I.	
	Amendment 1; "Low Dose BCNU Polymer in 9L Rat Flank"	4/15/04 - 5/14/04		
	Total DC: \$2,980	Effort 1%	Role: P.I.	
	Amendment 2, "Testing the Efficacy of the CytoDome device in the 9L Rat Flank Tumor Model with and without BCNU"	Total Period: 2/15/05 - 4/15/05		
	Total DC: \$3,499	Effort 1%	Role: P.I.	
	Amendment 3, "Testing the Efficacy of the CytoDome device in the 9L Rat Flank Tumor Model with and without BCNU"	Total Period: 4/15/05 – 7/22/05		
	Total DC: \$8,778	Effort 1%	Role: P.I.	
	Amendment 4, "Testing the Efficacy of the CytoDome device in the 9L Rat Flank Tumor Model with and without BCNU"	Total Period: 08/01/05 – 12#105		
	Total DC: \$23,163	Effort 1%	Role: P.I.	
5/1/05-8/31/04	MacroMed, Inc.			
	"OncoGel Delivery System-Toxicity and Efficacy Studies"			
	Total DC: \$11,410	Effort 3%		
	Role: P.I.			
05/01/06-08/30/06	MacroMed, Inc.			
	"OncoGel Controlled Release ReGel/Paclitaxel Delivery System-Toxicity and Efficacy Study"			
	DC: \$10,128	Effort 1%	Role: P.I.	
5/01/06-8/31/06	"The Effect of Neuregen for the Treatment of Malignant Glioma in an Experimental Rodent Model with and without Locally Delivered BNCU"			
	Southern Illinois U (Gregory Brewer)			
	Total DC: \$1,297			
	Role: Consultant	Effort 0%	P.I.: Betty Tyler	
5/1/02-4/30/07	"Anti-Excitotoxic Therapies to Target Glioma Growth"			
	Accelerated Brain Tumor Cure (ABC²)			
	TDC: \$100,000			
	Role: Co- P.I.	Effort 2%	P.I.: Jeffrey Rothstein	
1/1/06-4/30/07	"Talabostat and PT-630-an Efficacy Study with Intracranial Murine Melanoma"			
	Point Therapeutics			
	TDC \$3,060	Effort 1% (no sal)		
	Role: P.I.: Brem			
12/01/07-03/31/08	"Combination Therapy with OncoGel and Other Chemotherapeutic Agents to Treat Experimental Malignant Glioma"			
	Protherics, PLC			
	T DC: \$18,146	Effort 1% (no sal)	Role: P.I.	
4/1/07-11/30/08	"Safety and Efficacy Studies Using Zymes Compound in an Experimental Intracranial Rodent Glioma."			
	Zymes, LLC.			
	TDC \$17,246			
	Role: Consultant	(Effort 0/0)	P.I.: B. Tyler	

OTHER

Updated 2/10/23

Previous:

1983 - 1985	"Detection of Human Central Nervous System Tumors" American Cancer Society Grant	PDT-228
1984 - 1985	"Inhibition of Brain Tumor Angiogenesis" American Cancer Society Institutional Grant	
1985 - 1990	"Inhibition of Brain Tumor Angiogenesis" NCI, Clinical Investigator Development Award, 5 KO8-NS01058 DC: \$289,440	Total Period: 12/1/87 – 11/30/90 Effort: 75% Role: P.I.
1987 - 1989	Clinician-Scientist Award, Andrew W. Mellon Foundation Grant for Faculty Development , Johns Hopkins University School of Medicine	
1988 - 1989	"New Treatment with Sustained Release to the Brain" Alzheimer's Association	
1993 - 1994	"Anti-angiogenesis Research." Preuss Foundation TDC: \$50,000	Total Period: 1/1/03 – 12/31/03 Effort: 5% Role: P.I.
2003-2004	"Haptoglobin and Tumor Angiogenesis" Technion Foundation Award ; Joint JHU-Technion Program for Biomedical Sciences and Biomedical Engineering JHU DC: \$66,666 Role: Co-P.I.	Total Period: 1/1/03 - 12/31/04 Effort: 5% P.I. Brem (JHU)/Andy Levy (Israel)
3/1/07-10/31/07	"In Vivo Evaluation of Sugar-SCFA Nanoparticles" JHU Institute for NanoBioTechnology \$25,000 Entire Project dc Role: Co-investigator Effort 1% (no sal) P.I. Kevin Yarema	

Training grant participation:

NIH NRSA T32CA09574 (P.I.: Stuart Grossman) Research Training in Neuro-Oncology"	7/1/87-6/30/13 Role: Co- P.I.
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(Trainees in the Hunterian Neurosurgical Laboratory)

07/89 - 07/91	Chris Guerin	"Angiogenesis"
07/91 - 07/93	Jon Weingart	" Angiogenesis, Camptothecin"
07/91 - 07/93	Kwame Buahin	" Polymer delivery of BCNU & 4-HC"
07/93 - 07/93	Eric Sipos	" Angiogenesis, minocycline, CMTs"
07/93 - 07/95	Reid Thompson	"Immunotoxins, cytokines, vasospasms"
07/94 - 07/96	Allan Sills	"Steroid release from polymers" and "Squalamine"
07/94 - 07/96	Matt Ewend	"Gene therapy"
07/96 - 07/98	Prakash Sampath	"Chemo and immuno-therapy"
07/97 - 07/99	Larry Rhines, MD	"Resistance modifiers"
07/98 - 07/00	Raymond Haroun	"Antiangiogenesis"
07/00 - 06/02	Jay Storm	"Camptothecin"
07/01 - 06/03	Paul Wang	"Angiogenesis" and "COL-3, COL-8"
07/02 - 07/04	Kyle Weaver	"Glutamate transporter"
07/02 - 07/04	Eric Amundson	"Camptothecine" and "spinal metastases"
07/05 - 07/07	Khan Li	"Combination drug therapy"
07/06 - 07/08	Violette Renard	"Efficacy of Camptothecin analogs – preclinical studies"
07/06 - 07/08	Daniel Sciubba	"Ultrasound ablation of spine tumor metastases. Gene viral delivery for

07/08 - 07/10	Wesley Hsu	treatment of spine tumors"
07/09 - 07/11	Gustavo Pradilla	"Isolation of Cancer Stem Cells in Chordoma"
07/09 - 07/11	Chetan Bettegowda	Stereotactic Radiosurgery in an Animal Model of Metastatic Spine Disease"
07/11 - 07/13	Mari Groves	"Blood based biomarkers in Cancer"
		"Microchip Implantations in the Brain"
NCI NRSA, 5 T32 CA09630-14 (P.I: Z. Bhujwalla)		8/1/89-12/31/2003
"Research Training in Oncology Imaging"		Role: Participating Faculty
NCI 2 T32-HL07712-11 (P.I. Paul Bottomley)		7/1/92-6/30/2005
"Research Training in Interventional Radiology"		Role: Participating Faculty
NCI 5PP30 CA006973 (P.I.: William Nelson)		5/1/97-4/30/16
"Regional Oncology Research Center Grant"		Role: Program Leadership
NCI NIH 5T32EB003383 (P.I.Nitish Thakor)		5/1/04-4/30/16
"Neuroengineering Training Grant"		Role: Participating Faculty
NIH 5R25CA153952-04 (P.I. Denis Wirtz)		9/1/10 - 8/10/16
"Training Program in Nanotechnology for Cancer Medicine"		Role: Participating Faculty

Editorial Activities:

Editorial Board Appointments:

Journal of Neuro-Oncology, Associate Editor, 1995
 The International Journal of Drug Targeting, 1995
 Neurosurgery, 1997 - 2011
 Neuro-Oncology, 1998 - 2003
 Annals of Surgical Oncology (Section of Neuro-Oncology,) Executive Committee 2002-2005
 AACR, Molecular Cancer Therapeutics, 2001
 NeuroRx (ASENT), 2002-2005
 Annals of Surgical Oncology, 2006-2008
 World Neurosurgery, 2010 - present
 Neurosurgery, Editorial Advisory Board , 2011 - present
 Annals of Surgical Oncology, 2017-2018

Editor:

Guest Editor, Journal of Neuro-Oncology (Special Edition: Implant Approach to Chemotherapy), 1995.
 Section Editor, Youmans Textbook of Neurological Surgery-5th Edition, 2003.
 Associate Editor, Annals of Surgical Oncology (Section of Neuro-Oncology) 2002-2005.
 Section Editor, Youmans Textbook of Neurological Surgery-6th Edition, 2011

DEVELOPMENT AND FUNDRAISING ACTIVITIES

2000 - Present \$220,000,000 including fifteen new endowed professorships and one new Institute.

Harvey Cushing Professorship in Neurosurgery
Donlin Long Chair in Neurosurgery
Irving J. Sherman, M.D. Research Professorship in Neurosurgery
Walter Dandy, M.D. Professorship in Neurosurgery
Salisbury Family Professorship in Neurosurgery
A. Earl Walker, M.D. Professorship in Functional Neurosurgery
Benjamin S. Carson, Sr., M.D. and Dr. Evelyn Spiro, R.N. Professorship in Pediatric Neurosurgery
The Solomon H. Synder Professorship in Neurosurgery
The George J. Heuer Professorship in Neurosurgery
The Henry Brem Professorship in Neurosurgery
Neurosurgery Pain Research Institute at Johns Hopkins
Rita Honey Heirs Assistant Professorship in Tarlov Cyst in Neurosurgery
The Jennison-Novak Professorship in Neurosurgery
The Reza Khatib, MD Brain Tumor Research Center
The Irving J. and Florence Sherman Professorship in Neurosurgery

CLINICAL ACTIVITIES

Active Neurosurgical Practice. Neurosurgeon-In-Chief, Johns Hopkins Medical Institutions
Built Largest Brain Tumor Center in the United States.

Medical Licensure

Maryland Board of Physicians
Physician & Surgeon, Certification No. D0024362

Board Certification: American Board of Neurological Surgery - September, 1986

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments:

Search Committees for Departmental Chairs and Leadership:

- 2000 Psychiatry
- 2001 Surgery
- 2002 Radiation Oncology
- 2003 Radiology
- 2003 Anesthesia and Critical Care (Vice Chairman)
- 2003 Ophthalmology (Chairman)
- 2007 Neurology
- 2007 Oncology
- 2010 Otolaryngology –Head and Neck Surgery
- 2013 Pediatric Surgeon in Chief of the Bloomberg Children's Hospital
- 2013 Anesthesia and Critical Care (Chairman)
- 2016 President of the Johns Hopkins Health System and Executive Vice President of Johns Hopkins Medicine
- 2017 President and CEO of the Kennedy Krieger Institute
- 2018 Neuroradiology Chief

Johns Hopkins Academic Committees:

- 1984 - 1994 Johns Hopkins Hospital Tissue Committee

1984 - 1992	Neurosurgery Department: Resident Lecture Series & Journal Club
1984 - 2000	Neurological Intensive Care Unit
1985 - 1986	Dean's Committee on Development of Resources for Clinical Investigators
1985 - 1990	Laser Committee - Johns Hopkins Hospital
1989 - 1993	Johns Hopkins University Medical School Council
1993 - 1995	Clinical Neurosciences Appointments & Promotions Committee
1993 - 1997	Faculty Compensation Ad Hoc Dean's Committee.
1993 - 1995	Clinician Scientist Committee, JHU Sch of Med
1994 - 1995	Johns Hopkins Hospital Cancer Center Project Planning
1994 - 1998	School of Medicine Professorial Promotions Subcommittee
1994 - 2000	Chairman, Neurosurgery Task Force-Faculty Compensation
1994 - 2005	Director, Scientific Research Center; New Approaches to Brain Tumor Therapy (NABTT;NIH,NCI)
1995 - 2000	Associate Professor Promotions Committee, Johns Hopkins SOM
1995 -	Executive Operating Room Committee
1997 - 1998	Dean's Committee on Revision of Promotion Guidelines for Johns Hopkins School of Medicine.
1997 - 1998	SOM Service Excellence Task Force Committee.
1998 - 2000	Technology Advisory Group - Office of the Dean
1998 - 2000	Chairman, Neurosurgery Task Force for Laboratory and Operating Room Planning.
2000 -	Board of Trustees, Johns Hopkins Medicine, Ex offico
2000 - 2002	Budget, Finance & Planning Committee of the Clinical Practice Assoc, JHMI.
2000 - 2003	Professors Promotions Committee, Johns Hopkins, SOM
2000 -	Surgical Sciences Chiefs Committee
2000 - 2005	Length of Stay Initiative
2000 - 2005	Casemix/Clinical Documentation Committee
2000 -	Clinical Directors Committee, JHH
2000 -	Johns Hopkins Hospital Medical Board
2000 -	Advisory Board of Medical Faculty, JHUSOM
2000 - 2007	Director, Neurosurgery Residency Program
2000 - 2007	Joint Committee on Graduate Medical Education and Postdoctoral Programs
2001 - 2003	Conflict of Interest Policy Review Committee, JHUSOM
2001 - 2010	Board of Governors, Clinical Practice Association, JHUSOM.
2002 - 2005	Johns Hopkins Medicine Committee on Faculty Development and Gender
2002 -	Innovation in Quality Patient Care Steering Committee
2002 -	Advisory Council, Sidney Kimmel Comprehensive Cancer Center
2002 - 2010	Chairman, Budget, Finance & Planning Committee of the Clinical Practice Association
2003 - 2005	Agenda Committee of the Advisory Board of Medical Faculty – JHUSOM
2003 - 2005	Cancer Research Building Planning Council
2003 -	Technology Opportunities Program Committee, JHUSOM
2007 -	Advisory Board, Brain Science Institute, JHUSOM.
2009 -	Planning Committee & University Council – Brain Science Institute, JHUSOM
2009 -	Johns Hopkins Prize Committee
2009 -	Inpatient Flow Executive Team for Johns Hopkins Hospital
2011- 2012	Director's Committee for Quality and Safety, Johns Hopkins Medicine, Chair
2011-	Armstrong Institute for Patient Safety and Quality, Physician Leadership in Quality and Care Delivery, Co-Chair
2011-	Armstrong Institute for Patient Safety and Quality Transition Team
2011-	Bed Management and Reallocation Opportunities, Johns Hopkins Health Services Workgroups, Team Leader.
2011-	Coulter Foundation Oversight Committee
2011-	Clinical Director's SOM, Safety Initiative
2011-	JHM Operating Committee
2012-	JHU Space Committee
2012 - 2013	Chairman, Internet and Digital Brand Management Advisory Committee

2012 - 2014	Chairman, LCME Institutional Setting Subcommittee for Accreditation Site Visit
2012 -	Neurofibromatosis Therapeutic Acceleration Program (NTAP) Johns Hopkins Oversight Committee (\$90M)
2018-	Grateful Patient Fundraising Ethics Committee

PROFESSIONAL SOCIETIES:***National Committees:***

1988 - 1993	Preuss Research Award Selection Committee
1989 - 1990	Scientific Committee for the Convention of Congress of Neurological Surgeons
1990 -	Brain Tumor Research Subcommittee for the Joint AANS/CNS
1992 -	Surgical Committee of the Radiation Therapy Oncology Group RTOG)
1996 -	National Comprehensive Cancer Network (NCCN) Central Nervous Systems Cancer Panel (2011-)
1999 -	American College of Surgeons-Oncology Group, Brain/Central Nervous System Organ Site Committee Physician Group (Member ID 378; Group ID 162)
2001 -	Liaison to the National Cancer Institute for the American Association of Neurological Surgeons Board of Directors
2002 - 2009	Neurosurgery Research and Education Foundation, Executive Council Member
2003 -	Institute of Medicine, National Academy of Sciences: IOM Membership Committee, Vice-Chair, Section 1 (2003-2005) IOM, Membership Committee, Chair, Section 1 (2005-2007) IOM, Nomination Committee, (2011-)
2005 -	Society of Neurological Surgeons, Research Updates in Neuroscience for Neurosurgeons (RUNN) at the Marine Biological Laboratory, Woods Hole, Massachusetts. RUNN Course Co-Director RUNN Curriculum (Subcommittee)
2007 -	B.R.A.I.N. (Brain Research Academy International for Neoplasia) founding member
2007	American Academy of Neurological Surgery, Scientific Program Chair -69 th Annual Meeting, Lake Las Vegas, Henderson, Nevada Oct 31-Nov 3, 2007.
2007 -	Society of Neurological Surgeons – Committee on Resident Education (CoRE).
2009 -	NYU in DC Committee - New York University Alumni.

Conference Organizer, Session Chair:

American Academy of Neurological Surgeons, Oct 31-Nov 3, 2007, Scientific Program Chair.

Advisory Committees, Review Groups:***Scientific Advisory Committees:***

1997-	National Brain Tumor Foundation, San Francisco
1997-	Brain Tumor Society, Boston, MA
2011 -	Doris Duke Charitable Foundation San Francisco Research Fellowship at Johns Hopkins
2011-	Brain Science Institute Neurotranslational Program
2011-	Armstrong Executive Committee
2011-	FDA Medical Devices Advisory Committee

2012- The European Association of Neurosurgical Societies

N.I.H. Study Section –Reviewer:

Surgical Training Program Grants, Washington, DC, Ad Hoc Committee UCSF - Brain Tumor Center Ohio State University - Brain Tumor Cooperative Group	Feb 17, 1993 Oct 20-22, 1993. Apr 22, 1994
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Selected Grant Reviews:

1. North Carolina Biotechnology Center Economic Development Financial Grants Program. Spartaject Formulations of Natural Produce Anti-Cancer Agents." November 1994.
2. Breast Cancer Research Programs - California Cancer Fund. "Angiogenesis and Growth Control." May 1995.
3. The Brain Tumor Society Scientific Advisory Council, Boston, Massachusetts, 1997-2001
4. National Brain Tumor Foundation. 1997-
5. American Cancer Society – 2000
6. The Skolkovo Institute of Science and Technology SkTech/MIT Initiative. 2012
7. B*CURED (Brain Cancer Understanding, Research, Education and Development) – 2017-

Consultantships:

Scientific Advisory Boards:

1991 - 2001	Focal, Inc., Lexington, Massachusetts
1993 - 1996	Boston Life Sciences, Inc., Waltham, Massachusetts
1994 - 1997	Polykinetix, Inc., New York, New York
1995	International Cancer Alliance, Bethesda, Maryland
1995 - 1999	EnzyMed, Inc., Iowa City, Iowa
1996 - 2002	Orasomal, Technologies, Inc., Lake Bluff, Illinois
1997 - 2000	Astra Merck Neuroscience Advisory Board
1997 - 2003	Glioma Outcomes Program Advisory Board
1998 - 2000	Rhone-Poulenc Rorer Oncology Advisory Board
1998 - 2000	Medical Programs Incorporated
1999 - 2001	EntreMed, Inc., Oncology Advisory Board
2000 - 2005	Guilford Pharmaceuticals, Inc., Baltimore, MD (founding scientist)
2000 - 2005	GMP Companies, Inc.
2001 -	PureTech Ventures, LLC
2001	Accelerate Brain Cancer Cure (ABC ²)
2003	CytoDome, Inc, Dunwoody, GA.
2004 - 2006	MacroMed, Inc., Sandy UT
2005 - 2009	Day Casebeer Madrid & Batchelder LLP, Cupertino, CA (consultant)
2005	BrainsGate, Ltd, Israel
2005	Northwest Biotherapeutics, Inc, Bothell, WA
2010	Voices Against Brain Cancer
2011-	Perosphere, Inc.
2013	NexImmune
2014 -	StemGen. Milano Italy
2014 -	AsclepiX Therapeutics

2015 -	Camden Partners Holdings, LLC
2016 -	AcuityBio
2016 -	Lattice Biologics
2019-	Nurami Medical
2019-	Galen Robotics
2019-	InSightec

Board of Directors:

1991 - 2001	Focal, Inc., Lexington, MA
1997 - 2000	Carson Scholarship Foundation, Baltimore, MD
1999 - 2004	Beth Tfiloh Day School, Baltimore, MD
2000 -	JHU Technion Joint Program
2003 - 2005	Ben Fund, Baltimore, MD
2007 - 2010	Alseres Pharmaceuticals, Inc.
2009 - 2018	Maryland/Israel Development Center
2015 -	Jerusalem Azrieli College of Engineering, Board of Trustees
2016 -	LikeMinds, Inc.

Medical Advisory Board:

2012 -	The Jewish Caring Network
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RECOGNITION**Awards, honors:**

1970	Marmorosh Award for Academic Achievement
1972	Rubin Award in Basic Medical Sciences (NYU) Coat of Arms Honor Society of NYU
1973	Salem Award for Outstanding Academic Accomplishment and Highest Honors in Biology (NYU)
1975	Saul R. Korey Award for Experimental Neurology (American Academy of Neurology)
1978	Honors in a Special Field, Harvard Med School
1980	Resident Award of the New York Society of Neurosurgery
1985	Neurosurgery Award for Distinction in Teaching, Johns Hopkins University
1985	Clinical Investigator Development Award, NIH
1987	Clinician-Scientist Award, Johns Hopkins University
1990	Fellow, American College of Surgeons
1995	Clemson Award for Applied Research, Society for Biomaterials.
1995	Walter E. Dandy Visiting Professorship, JHU
1996	Professor's Award for Excellence in Teaching, JHU
1996	Altman Lectureship, University of Pennsylvania
1997	Fellow, American Institute for Medical and Biomedical Engineering.
1998	High Technology Award (for Gliadel), The Technology Council of Maryland.
1998	Institute of Medicine, National Academy of Sciences (National Academy of Medicine)
2000	Neurosurgery Department Ranked #3 by <i>U.S. News and World Report</i>
2000	International Fellow of Biomaterials Science and Engineering (FBSE), Society for Biomaterials.
2000	Grass Foundation Award of the Society of Neurological Surgeons for research contributions.
2001	Founders' Award, Controlled Release Society
2002 -	Castle Connolly America's Top Doctors, Castle Connolly Guide
2004	Neurosurgery Department Ranked #2 by <i>U.S. News and World Report</i>

2004	New York University Distinguished Alumni Award
2004 -	Baltimore Monthly Medical Reunion Dinner Club
2005	2005 Technology Innovation and Development Award of the Society for Biomaterials
2005	E. Llewelyn Thomas lecturer, The Institute of Biomaterials and Biomedical Engineering, Toronto, CA
2005 -	Tocqueville Society of The United Way of Central Maryland
2005	The Noun Shavit Memorial Lecturer, Ben-Gurion University, Beer Sheva, Israel.
2005	Coleman Fellow in Life Sciences, Ben-Gurion University, Beer-Sheva, Israel
2005 -	Castle Connolly America's Top Doctors for Cancer, Castle Connolly Guide
2007	Rosomoff Visiting Professor, Department of Neurosurgery, University of Miami, Miami, Florida.
2008	Visiting Professor, Cedars-Sinai Medical Center, Los Angeles, CA.
2009	Henry A. Shenkin, MD Lecture, Temple University, Philadelphia, PA.
2010	Faculty Inductee, Alpha Omega Alpha Honor Medical Society
2010	Neurosurgery Department Ranked #1 by <i>U.S. News and World Report</i>
2010	Van Wagenen Professor, University of Rochester Medical Center, Rochester, NY.
2010	Gary Lichtenstein Humanitarian Award, Voices Against Brain Cancer
2010	Tenth Annual Hugo V. Rizzoli, M.D. Lecturer, Walter Reed Army Medical Center & National Naval Medical Center, National Capital Neurosurgery.
2011	Commencement Address, Johns Hopkins University School of Medicine
2011	Seventh Annual Stuart Rowe Society Lecturer, University of Pittsburgh, Department of Neurosurgery
2012	Boy Scouts of America, Health Leadership Award
2012	Castle Connolly Magazine, Top Doctors: Washington-Baltimore
2013	The Michael S. Voynick Lecture in Neuro-Oncology Award, Yale School of Medicine, New Haven, CT
2013	The Abitjit Guha Award and Lecture
2014	Johns Hopkins Medicine International Community Service Award, Chabad at Johns Hopkins
2014	Henry Brem Endowed Chair in Neurosurgery, Johns Hopkins University
2015	Castle Connolly National Physician of the Year Award for Clinical Excellence
2015	National Academy of Medicine
2017	Albert Nelson Marquis Lifetime Achievement Award
2017	Provost's Award for Excellence in Faculty Mentoring
2017	Castle Connolly America's Top Doctors for 15 Years, Castle Connolly Guide
2018	Andy Parsa Mentorship Award; American Association of Neurological Surgeons and the Congress of Neurological Surgeons
2019	Inducted into Baltimore Jewish Hall of Fame by JCC of Greater Baltimore
2019	The Sally Harrington Goldwater Memorial Visiting Professor Award; Barrow Neurological Foundation
2019	Castle Connolly America's Top Doctors for Cancer
2019	Society of Neurological Surgeons Medical Student Teaching Award
2021	Top Doctors in Baltimore

Invited Talks, Panels:

1. Seminar, Graduate Department of Psychology, New York University. "Role of Cyclic AMP in the Nervous System." April 3, 1973.
2. Seminar, Graduate Department of Biology, N.Y.U. "Membrane Changes and Regulation of DNA Synthesis." April 24, 1973.
3. Second International Catalina Colloquium on Extracellular Matrix Influences on Gene Expression Cartilage Mediated Inhibition of Tumor Angiogenesis." Sept 23, 1974
4. Soma Weiss Award Assembly, Harvard Medical School, Boston, MA. "Inhibition of Tumor Angiogenesis is Mediated by Cartilage." May 13, 1975.
5. Surgical Grand Rounds, West Roxbury V.A. Hospital. "Tumor Angiogenesis." January 13, 1977.
6. Medical Grand Rounds, Brockton V.A. Hospital. "Control of Tumor Angiogenesis." May 3, 1977.
7. Association for Research in Vision and Ophthalmology, Sarasota, Florida. "Vitreous Inhibition of Tumor Neovascularization." April 26, 1977.
8. Seminar, Department of Medicine, Massachusetts General Hospital. "Inhibition of Neovascularization as a Control of Tumor Growth." June 22, 1977.

9. Lecture, Wilmer Institute, Johns Hopkins School of Medicine. "Progress in Controlling Tumor Angiogenesis." June 14, 1977.
10. Soma Weiss Award Assembly, Harvard Medical School, Boston, MA. "Control of Neovascularization." May 18, 1978.
11. Plastic Surgery Department, Children's Hospital Medical Center and the Peter Bent Brigham Hospital, Boston, MA. "Clinical Observations and Basic Science." July 28, 1978.
12. Lecture, Workshop in New Research in Diabetic Retinopathy, Boston, Mass. "Cartilage Mediated Inhibition of Neovascularization." September 15, 1978.
13. Society of University Surgeons, University Surgical Resident's 21st Annual Conference in Salt Lake City, Utah. "One year Administration of Oral Norepinephrine and Methoxyamine to Control G.I. Bleeding from Recurrent A-V Malformations." February 15, 1979.
14. Faculty Course in Cervical Neoplasia, Hospital General de Mexico, Mexico City. "Angiogenesis." April 12, 1979.
15. Surgical Grand Rounds, Peter Bent Brigham Hospital, Boston, MA. "Control of Tumor Growth." May 12, 1979.
16. Sixth National Science Writers Seminar of Research to Prevent Blindness, Los Angeles, California. "Progress In Controlling Retinal Neovascularization." October 8, 1979.
17. Conference on Diabetic Retinal Syndrome, Downstate Medical Center, New York. "Control of Neovascularization." November 12, 1979.
18. New York Society of Neurosurgery. "Inhibition of Angiogenesis: Significance for Human Brain Tumors" - Award Lecture. March 11, 1980.
19. Association for Research - Vision and Ophthalmology, Orlando, Florida. "Corneal Inflammation Induced by a Purified Lymphokine." May 9, 1980.
20. Clinical Congress of the American College of Surgeons, Atlanta, Georgia. "Human Brain Tumors: Differences in Ability to Stimulate Angiogenesis. October 22, 1980.
21. Conference on Diabetic Renal-Retinal Syndrome II, Downstate Medical Center, New York. "Controlling Blood Vessel Proliferation." Nov., 1981.
22. The Fellowship of Academic Neurosurgeons, XIII Annual Meeting, New York. "Angiogenesis Theory." March 11, 1983.
23. American Association of Neurological Surgeons, Washington, DC "Detection of Human Brain Tumors: An In Vitro Method Utilizing CSF." April 27, 1983.
24. Clinical Congress of the American College of Surgeons, Atlanta, GA. "Detection of Human Central Nervous System Tumors: Use of Migration Stimulating Activity of the Cerebrospinal Fluid. October 19, 1983.
25. Congress of Neurological Surgeons, Chicago, Illinois. "Brain Tumor Angiogenesis." October 28, 1983.
26. Neurology Grand Rounds, Johns Hopkins Hospital. "Brain Tumor Angiogenesis." September 20, 1984.
27. Lecture, Johns Hopkins University School of Medicine, Symposium on Temporal Bone Surgery." Nov. 9-10, 1984.
28. Ophthalmology Grand Rounds, Wilmer Ophthalmological Institute, JHH.b"Retinal Signs and Symptoms of Carotid Artery Disease." November 21, 1984.
29. Pediatric Neuro-Oncology Conference, Johns Hopkins Hospital. "New Approaches in Brain Tumor Therapy." December 12, 1984.
30. Surgical Grand Rounds, Johns Hopkins Hospital. "Hemangioblastomas and Angiogenesis." December 1984.
31. Oncology Grand Rounds, Johns Hopkins Hospital. "Neovascularization of Brain Tumors." January 10, 1985.
32. General Surgery Grand Rounds, St. Agnes Hospital, Baltimore, MD. "Advances in the Diagnosis and Treatment of Brain Tumors." January 16, 1985.
33. Neurology Grand Rounds, Johns Hopkins Hospital. "Extracranial-Intracranial Bypass Grafting for Cerebral Ischemia." Mar. 7, 1985.
34. NINCDS SNB, NIH, Bethesda, MD. "Brain Tumor Angiogenesis." April 12, 1985.
35. Pathology Lecture, Johns Hopkins Hospital. "Tumor Vasculature." April 16, 1985.
36. Lecture, The Johns Hopkins Medical and Surgical Association. "Angiogenesis Factor and its Potentials for Therapy in Brain Tumors." Jun 14, 1985
37. Medical Grand Rounds, Francis Scott Key Medical Center, Baltimore, MD. "Treatment of Brain Tumors." January 15, 1986.
38. Lecture, Johns Hopkins Medical Institutions, Skull Base Tumor Course. "Tumors of the Foramen Magnum."

- February 8, 1986.
39. Lecture, Johns Hopkins University, Acute Care in Neurology and Neurosurgery. "New Approaches to Treatment of Brain Tumors." April 4, 1986.
 40. Lecture, Johns Hopkins University, Department of Rehabilitation Medicine. "Management of Aneurysms and Vascular Malformations. May 19, 1986.
 41. Surgery Grand Rounds, Johns Hopkins Hospital. "Metastatic Spinal Disease." March 7, 1987.
 42. Science Writers Conference on Brain Cancer. March 18, 1987.
 43. Lecture, Johns Hopkins University, Topics in Clinical Medicine 1987. "Pituitary Lesions." May 15, 1987.
 44. Lecture, Society of University Neurological Surgeons. "Human Brain Tumor Angiogenesis: drug delivery by bioerodible materials." May 29, 1987.
 45. Lecture, The Johns Hopkins Medical and Surgical Association. "Angiogenesis in Human Brain Tumors." June 12, 1987.
 46. Lecture, The Johns Hopkins Medical Institutions. Interventional Neuroradiology: Current Practices and Techniques. "Treatment of Intracranial Angiofibromas and Chemodectomas." "Embolization and Surgical Management of Meningiomas." December 9, 1987.
 47. Lecture, The Johns Hopkins Medical Institutions, PET Scanning Course. "PET Scanning of Brain Tumors." March 18, 1988.
 48. Visiting Professor, Columbia College of Physician and Surgeons, New York, NY. "Advances in Neuro-Oncology." June 30, 1988.
 49. Lecture, 6th Gordon Research Conference on Drug Carriers in Biology and Medicine, Plymouth, NH. "Clinical Studies: Bioerodible Polyanhydrides for Brain Disorders." July 13, 1988.
 50. Lecture, Joint Tumor Section Program of the Congress of Neurological Surgeons, Seattle, WA. "Tumor Angiogenesis." September 26, 1988.
 51. Lecture, Johns Hopkins University Medical School, Basic Surgical Clerkship Lecture Series. "Brain Tumors." Quarterly, 1988 - 1990.
 52. Lecture, Association of Government Toxicologists. Rockville, MD. "Implants." Oct. 27, 1988.
 53. Lecture, University of Pennsylvania, Visiting Professor. Interstitial Chemotherapy for Brain Tumor Angiogenesis." March 9-10, 1989.
 54. Lecture, Peripatetic Club, 52nd Annual Meeting, Baltimore, MD. "Biodegradable Polymers as Vehicles for Therapeutic Agents." March 31, 1989.
 55. Seminar, The American Association of Neurological Surgeons, Washington, D.C. "Intralesional Therapies for Malignant Gliomas." April 6, 1989.
 56. Lecture, Neurosurgery Grand Rounds, Christiana Hospital, Newark, DE. "Advances in Neuro-Oncology." May 18, 1989.
 57. Lecture, Johns Hopkins Hospital Centennial, Baltimore, MD. "Neuro-oncology." June 6, 1989
 58. Lecture, NATO ASI, Cape Sounion, Greece, Targeting of Drugs: Optimization Studies. June 24-July 5, 1989.
 59. Lecture, Controlled Release Society, Chicago, IL. "Controlled Delivery to the Brain." August 7, 1989.
 60. Lecture, Review and Update in Neurobiology for Neurosurgeons, Woods Hole, Massachusetts. "Biodegradable Polymers." November 11, 1989.
 61. Lecture, Tables Rondes Roussel-UCLAF, Paris, France. "Delivery of Drugs to the Brain by Use of Sustained-Release Polyanhydride Polymer System." Dec 7, 1989.
 62. Lecture, Stockholm, Sweden. "Clinical Trials of Controlled Release Polymers." December 10, 1989.
 63. Lecture, McGill University - Neuroscience Symposium, Montreal, Quebec, Canada. "Biodegradable Polymers to Treat Brain Tumors." January 10, 1990.
 64. Lecture, Johns Hopkins Hospital, Surgery Grand Rounds. "Intraoperative Drug Delivery." March 10, 1990.
 65. Plenary Lecture, American Chemical Society, Boston, MA. "The Development of Polyanhydrides to Treat Brain Tumors." April 26, 1990.
 66. Lecture, Research Society of Neurological Surgery, Boston, MA. "Brain Tumor Angiogenesis." June 14, 1990.
 67. Visiting Professor, Georgetown University School of Medicine, Neurosurgery Grand Rounds, Washington, D.C. "New Approaches to Treating Brain Tumors." Jun 20, 1990
 68. Visiting Professor, Chicago Neurological Center. "The Development of Local Therapy for Brain Tumors." July 9, 1990.
 69. Lecture, Johns Hopkins Hospital, Surgery Grand Rounds. "Progress in the Treatment of Pituitary Tumors." October 13, 1990
 70. Visiting Professor, Robert Wood Johnson Medical School, New Brunswick, New Jersey. "New Approaches to

- Treat Brain Tumors" November 28, 1990.
71. Lecture, Recent Advances in Drug Delivery systems Symposium, Salt Lake City, UT. "Polymeric Drug Delivery Systems in the Treatment of Brain Diseases." February 28, 1991.
 72. Lecture, International Symposium on Angiogenesis, St. Gallen, Switzerland, "Drug Delivery to the Brain and Angiogenesis Inhibition." March 13, 1991.
 73. Lecture, The Preuss Foundation Seminar on Pharmacologic Problems in the Treatment of Glial Tumors, Durham, NC. April 16, 1991.
 74. Lecture, Research Society of Neurological Surgeons, Durham, NC. "Drug Delivery to the Brain Utilizing Biodegradable Polymers." May 3, 1991.
 75. Plenary Lecture, American Association of Cancer Research, Houston, TX. "Interstitial Chemotherapy Utilizing Polymers for Treating Brain Tumors." May 17, 1991.
 76. Lecture, Johns Hopkins University Joint Neurology/Neurosurgery Biennial Meeting. "Polymers for Treatment of Brain Tumors." June 7, 1991.
 77. Lecture, Johns Hopkins University Surgical Symposium. "New Approaches to the Treatment of Brain Tumors." June 7, 1991.
 78. Lecture, International Conference on Biomaterials, Jerusalem, Israel. "Biodegradable polymer implants to release drugs in the treatment of brain disease." June 9, 1991.
 79. Lecture, The Ninth International Conference on Brain Tumor Research and Therapy, Asilomar, CA. "Interstitial chemotherapy." October 16, 1991.
 80. The Chicago Institute for Neurosurgery and Neuroresearch, Basic Neurooncology Symposium. "Biodegradable Polymers for Brain Tumor Treatment." Nov 9, 1991.
 81. US-Japan Conference on Drug Delivery Systems, Maui, Hawaii. "Controlled Drug Delivery Systems for the Brain." Dec 16, 1991.
 82. Lederle Laboratories, Dept of Molecular Biology, NY. "Mechanism of Tetracycline Inhibition of Angiogenesis." January 28, 1992.
 83. Department of Chemical Engineering, M.I.T. "Polymer Development." February 24, 1992.
 84. Neurology Lecture Series, Johns Hopkins Hospital. "Control of Angiogenesis." February 25, 1992.
 85. Co-Chairman, Preuss Foundation Symposium. Dallas, TX. "Delivery of Treatment to Brain Tumors." March 12-13, 1992.
 86. American Chemical Society, San Francisco, CA. "Controlled Release Polymers to Deliver Drugs to the Brain." April 8, 1992.
 87. Second Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel. "Drug Delivery to the Brain." May 29, 1992.
 88. Neurology and Oncology Grand Rounds, Jerusalem, Israel. "New Developments in Brain Tumor Treatment." May 31, 1992.
 89. Gordon Research Conference on Drug Carriers in Biology and Medicine, New Hampshire. "Polymer Controlled Delivery to the Brain." July 6, 1992.
 90. American Association of Colleges of Pharmacy (AACP), Washington, D.C. "Biodegradable Implants for Brain Cancer." July 12, 1992.
 91. Controlled Release Society Symposium, Orlando, FL. "Controlled Delivery Systems for the Brain." July 31, 1992.
 92. Visiting Professor, Polish Academy of Sciences, Warsaw, Poland. "New Approaches to Intracranial Edema." August 21, 1992.
 93. Strategic Alliances with Industry, Greater Baltimore Committee's High Tech Assembly, Baltimore, Maryland. "Surgery, Drug Delivery and Computer Visualization." October 21, 1992.
 94. Congress of Neurological Surgeons, Washington, D.C. "Pharmacological Surgical Implants for Brain Tumor Therapy." November 2, 1992.
 95. Visiting Professor, Ohio State University, Department of Surgery. "Local Delivery of Chemotherapeutic Agents for the Treatment of Cancer." November 7, 1992.
 96. International Congress on Advances in Brain Revascularization, Eilat, Israel. "Polymers as Controlled Drug Delivery Systems for the Brain." April 22, 1993.
 97. American Association for Neurological Surgeons, Boston, MA. "New Windows in Glioma Treatment." April 27, 1993.
 98. Third Drug Discovery and Development Symposium, San Diego, CA. "Local Drug Delivery to Tumor using Polymer." July 24, 1993.

99. Congress of Neurological Surgeons, Vancouver, British Columbia. "Intestinal Chemotherapy for Brain Tumors." October 4, 1993.
100. American Academy of Neurological Surgery, Phoenix, AZ. "Polymers as an Intracranial Implantable Controlled Drug Delivery System." October 30, 1993.
101. Harvard Medical School - Continuing Education Medical Course, Boston, MA. "Delivery Systems for Brain Tumor Therapy." November 11, 1993.
102. UCLA Division of Neurosurgery, Advances in Brain Tumor Management Symposium, Marina del Rey, CA. "Biodegradable Polymers for Drug Delivery" and "Antiangiogenesis Therapy." November 20, 1993.
103. The 2nd US-Japan Symposium on Drug Delivery, Maui, HI. "Neural Applications of Controlled Delivery Devices." December 1993.
104. The New York Academy of Sciences Symposium, Tampa, FL. "Biodegradable Polymers for Neurological Applications." January 21, 1994.
105. Pet and Spect Imaging in Oncology, Johns Hopkins Medical Institutions, Baltimore, MD. "Therapeutic Decisions in Patients with Brain Tumors." March 9, 1994.
106. The Society of Surgical Oncology, Houston, TX. "Polymers as an Intracranial Implantable Controlled Drug Delivery System." March 19, 1994.
107. The American Association of Neurological Surgeons, San Diego, CA. "Novel Treatments for Malignant Gliomas." April 14, 1994.
108. The American Society of Clinical Oncology, Dallas, TX. "Intraoperative Chemotherapy using Biodegradable Polymers: Safety and Effectiveness for Recurrent Glioma Evaluated by a Prospective, Multi-Institutional Placebo-Controlled Clinical Trial." May 17, 1994.
109. The Controlled Release Society, Nice, France. "Polymers as an Intracranial Implantable Controlled Drug Delivery System." June 28, 1994.
110. Congress of Neurological Surgeons, Chicago, IL. "Intraoperative Chemotherapy Using Biodegradable Polymers by a Prospective, Multi-institutional Placebo-Controlled Trial for Safety and Effectiveness." October 5, 1994.
111. Multidisciplinary Clinical Conference, Johns Hopkins Oncology Center. "Local Delivery of Chemotherapy for Brain Tumors." October 20, 1994.
112. The Neurological Institute Association of the Alumni, Columbia University, NY. "New Horizons in Brain Tumor Therapy: From Laboratory to Bedside." December 1, 1994.
113. Seattle Glioblastoma Workshop, Seattle, Washington. "Polymer Systems for Drug Delivery to Brain Tumors." Dec 10-11, 1994.
114. The Keystone Symposia on Molecular & Cellular Biology, Hilton Head, SC. "Drug Delivery for Brain Tumors." January 11, 1995.
115. UCLA Symposium on Advances in Brain Tumor Management, Las Vegas, NV. "Biodegradable Polymers" and "Angiogenesis." Feb 18, 1995
116. Visiting Professor, Harvard Medical School, Boston, MA: Children's Hospital, Neurosurgery Grand Rounds, "Local Therapy for Brain Tumors Utilizing Biodegradable Polymers," and Brigham & Women's Hospital, Neuroscience Seminar, "Minocycline for Inhibition of Brain Tumor Angiogenesis." March 2, 1995.
117. Neuroscience Medical Student Course, Johns Hopkins University School of Medicine. "Brain Tumors." March 3, 1995.
118. Walter E. Dandy Visiting Professor, Baltimore, MD. "Treatment of Brain Tumors: Past, Present and Future." March 9, 1995.
119. 1995 Clemson Award Recipient for Biomaterials Research, Society for Biomaterials, San Francisco. "Polymeric Drug Delivery to the Brain." March 19-23, 1995.
120. American Association of Neurological Surgeons, Orlando, FL. "Current and Novel Treatments of Malignant Gliomas." April 27, 1995.
121. M.I.T. Chemical Engineering Lectureship, Cambridge, MA. "New Medical Technologies." May 8, 1995.
122. Visiting Professor, University of Calgary, Calgary, Alberta, Canada. "Biodegradable Polymers for Local Therapy of Brain Tumors--From Laboratory to Clinical Trials," and "Minocycline for Inhibition of Brain Tumor Angiogenesis." May 19, 1995.
123. The Johns Hopkins Medical & Surgical Association Biennial Meeting, Baltimore, MD. "New Approaches to Brain Tumor Therapy." June 9, 1995.
124. American Chemical Society, Conference on Formulations and Drug Delivery, Boston, Massachusetts. "Polymer Systems for Drug Delivery to the Brain." October 12, 1995.

125. Congress of Neurological Surgeons, San Francisco, CA "Treatment of Recurrent Gliomas." October 16, 1995.
126. American Neurological Association, Washington, DC. "Clinical Trials of Brain Tumor Therapy." Oct 23, 1995.
127. Society of Surgical Chairmen, Washington, DC. "Craniotomy Outcome Analysis." October 29, 1995.
128. Eleventh International Conference on Brain Tumor Research and Therapy, Napa, California. "Controlled Delivery of Chemotherapy by Biodegradable Polymers for the Treatment of Malignant Gliomas." Nov 1, 1995.
129. American Academy of Neurological Surgeons, Tucson, Arizona. "Surgically Implanted Biodegradable Polymers for the Treatment of Malignant Gliomas." Nov 4, 1995.
130. Visiting Professor, Neurology Grand Rounds, Johns Hopkins University, Baltimore, Md. "Drug Delivery to the Brain." November 9, 1995.
131. Controlled Release Society - 3rd US-Japan Symposium, Maui, HI. "Novel Delivery Therapies for Cancer." Dec 17-22, 1995.
132. American Association for the Advancement of Science, Baltimore, MD. "Polymeric Delivery Systems to the Brain." Feb 11, 1996.
133. Sandra Altman Memorial Lecture, University of Pennsylvania, Philadelphia, PA. "Novel Treatments for Brain Tumors." February 29, 1996.
134. Neuroscience Teaching Course, Johns Hopkins School of Medicine, Baltimore, MD. "Clinical Correlation." March 1, 1996.
135. Neuropathology Teaching Course, Johns Hopkins School of Medicine, Baltimore, MD. March 4, 1996.
136. Neurology Grand Rounds, University of Maryland, Baltimore. MD. "Local Therapy of Brain Tumors." March 13, 1996.
137. Ethical Dilemmas in Contemporary Surgery, Johns Hopkins Medical Institutions, Baltimore, MD. "The Education of Surgeons and the Surgical Dabbler: The Ethics of Referral." March 23, 1996.
138. PET and SPECT Imaging in Cancer Diagnosis and Treatment, Baltimore, MD. "The Problem: Care of Patients with Brain Tumors." March 27, 1996.
139. Howard University Cancer Center, Seminars in Oncology, Washington, DC. "Chemotherapeutic Implants for Malignant Brain Tumors." April 18, 1996.
140. Johns Hopkins University, Department of Medicine, Baltimore, MD. "New Approaches to Brain Tumor Therapy." April 27, 1996.
141. American Association of Neurological Surgeons, Minneapolis, MN. "Polymeric Delivery systems to Treat Brain Tumors: Current Clinical Status and Future Studies." May 2, 1996.
142. Visiting Professor, University of Cincinnati, Cincinnati, OH. "Inhibition of Brain Tumor Angiogenesis." June 18, 1996.
143. "Novel Treatments of Brain Tumors." June 19, 1996.
144. 3rd Jerusalem conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel. "Polymeric Delivery to the Brain: Laboratory and Clinical Studies." September 4, 1996.
145. Congress of Neurological Surgeons, Satellite Symposium, Joint Section on Tumor, Montreal, Canada. "Molecular Therapy." October 4, 1996.
146. Johns Hopkins University, Neuroscience, The Neurosurgeon in Society Program. "Introduction of New Therapies." October 31, 1996.
147. Medical College of Pennsylvania and Hahnemann University Symposium on Malignant Brain Tumors: Future Directions. "Chemotherapy: New Strategies to By-pass the Blood Brain Barrier." November 9, 1996.
148. Johns Hopkins University, Department of Chemistry, Homewood Campus, Baltimore, MD. Colloquium Series Seminar. "Drug Delivery to the Brain." Nov 12, 1996.
149. Training Program for Gliadel® Usage, Rhone-Poulenc Rorer, Dallas, TX. Dec 10 and Dec 16, 1996.
150. 18th Annual Eino Nelson Memorial Conference, Aventura, FL. "Localized Controlled Delivery of Chemotherapy for Brain Tumors." Jan 7, 1997.
151. European Association of Neurological Surgeons, Paris, France. "Defining a Standard for Local Therapy of Gliomas." February 1, 1997.
152. Neuroscience Medical School Course, Johns Hopkins University, Baltimore, MD. "Clinical Correlations." February 28, 1997.
153. The Neurosurgeon in Society Program, Johns Hopkins Department of Neurosurgery. "After Cushing and Dandy," April 3, 1997.
154. Visiting Professor, University of Florida, Tampa, FL "New Approaches to Brain Tumor Therapy," April 4, 1997.

155. Visiting Professor, The Moffitt Cancer Center, Tampa, FL. "Controlled Sustained Release Polymers to Deliver Cancer Therapy," April 4, 1997.
156. Medical Technology Assessment Course, Johns Hopkins School of Public Health, Baltimore, MD. "Assessing New Technologies." April 11, 1997.
157. American Association of Neurological Surgeons, Denver, CO. Seminar Moderator, "Current and Novel Treatment of Malignant Gliomas." April 17, 1997.
158. West Coast Advisory Panel on Brain Tumor Therapy, Laguna Beach, CA. "Role Gliadel® in Treating Brain Tumors." April 19, 1997.
159. American Association of Pharmaceutical Scientists Western Regional Meeting, San Francisco, CA. "Drug Delivery to the Brain Using Biodegradable Polymers." April 24, 1997.
160. The 6th Meeting of the Scandinavian Glioma Group, Espoo, Finland. "Local Chemotherapy of Gliomas." May 15, 1997.
161. American Society of Hospital Pharmacists, Minneapolis, MN. "New Treatments for Brain Disease." June 5, 1997.
162. Johns Hopkins Medical and Surgical Biennial Meeting, Baltimore, MD., "Advances in Brain Tumor Therapy." June 6, 1997.
163. Fourth Anticancer Drug Discovery Symposium, Annapolis, Maryland. "Polymeric Local Delivery of Therapeutic Agents to Treat Brain Tumors." August 5, 1997.
164. Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM), Berlin, Germany. "Clinical Experience with BCNU-polymers." August 6, 1997.
165. American Academy of Otolaryngology-Head and Neck Surgery, San Francisco, CA. "Cerebrospinal Fluid and Cerebral Vasculature Dynamics in Skull Base Surgery." Sept 10, 1997.
166. Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD. "Treatment of Brain Tumors Utilizing Controlled Drug Delivery." September 19, 1997.
167. Localized Treatments for Brain Cancer Symposium, New Orleans, LA. "Chemotherapeutic Wafer Implant after Glioma Surgery." September 29, 1997.
168. Johns Hopkins School of Medicine, Neurosurgeon In Society Program, Baltimore, MD. "Pituitary Tumors." October 9, 1997
169. Visiting Professor, University of Chicago, Chicago, IL. "New Approaches to Brain Tumor Therapy." October 17, 1997.
170. New Jersey Neurological Society, Short Hills, NJ. "Interstitial Chemotherapy for Brain Tumors." November 3, 1997.
171. Medicines Control Agency, London, England. "Clinical Trial Results with Gliadel®." Nov 7, 1997.
172. Seminaire Franco-Mexicain de Neurologie et de Neuroradiologie, Hospital de la Salpetriere. Paris, France. "Clinical Experience with Gliadel® Wafer in Glioblastoma." November 13, 1997.
173. NYU Post-Graduate Medical School Course (A Systems Approach to Glial Neoplasms), New York, NY. "The Future of Interstitial Chemotherapy". November 14, 1997.
174. Medical Grand Rounds, Johns Hopkins School of Medicine. "New Approaches to Drug Delivery in the Brain." November 21, 1997.
175. French Regulatory Agency, Paris, France. "Gliadel® to Treat Malignant Glioma." November 26, 1997.
176. 4th US-Japan Symposium on Drug Delivery Systems, Kauai, HI. "Polymers for the Development Brain Tumor Vaccines." December 14, 1997.
177. Visiting Professor, University of Tennessee, Memphis, TN. "Development of New Treatment Approach for Brain Tumors." February 6, 1998.
178. Astra Merck Neuroscience Seminar, Phoenix, AZ. "Brain Drug Delivery Using Intra-Cerebral Implants." March 7, 1998.
179. Neurology Grand Rounds, Johns Hopkins School of Medicine, Baltimore, MD. "New Approaches to Brain Tumor Therapy." March 5, 1998.
180. American College of Surgeons - Young Surgical Investigators' Conference, Chantilly, VA. "Grant Writing Skills-Mock Study Section on Neurosurgical Surgery." March 9, 1998.
181. American Association of Neurological Surgeons, Philadelphia, PA. "Current and Novel Treatment of Malignant Gliomas." April 30, 1998.

182. Visiting Professor, Medical College of Georgia, Augusta, GA. "New Approaches to Brain Tumor Therapy." May 7, 1998.
183. Angiogenesis Invasiveness Symposium, University of South Florida College of Medicine, Tampa, FL. "Update on Gliadel and Polymer-Based Drug Delivery: Outlook for Polymers as a Vehicle for Local Delivery of Angiostatic Inhibitors of Brain tumors." May 16, 1998.
184. Neurosurgery Visiting Professor, Beth Israel-Deaconess Hospital, Boston, MA. "New Approaches in Brain Tumor Therapy." June 24, 1998.
185. Genetics in Neuroscience, 1st International Congress, Terni, Italy. "Management of Gliomas." June 30, 1998.
186. Korean Brain Tumor Study Group, Seoul, Korea. (1) "Direct Delivery of Therapeutic Agents to Brain Tumors: Clinical and Laboratory Studies," (2) "Antiangiogenic Approaches to Brain Tumor Therapy." July 4, 1998.
187. Third Congress of the European Association for Neuro-Oncology (EANO III), Versailles, France. "Interstitial Chemotherapy: clinical Experience and Perspectives." September 14, 1998.
188. Congress of Neurological Surgeons, Seattle, WA. "From Laboratory Bench to Clinical Application." Oct 5, 1998.
189. 5th IUBMB Conference on the Biochemistry of Health and Diseases, Jerusalem, Israel. "Implantable Slow-Release Polymers for the Treatment of Brain Tumors." October 21, 1998.
190. Radiology Grand Rounds, Johns Hopkins School of Medicine. "The Development of New Approaches to Treating Brain Tumors" Oct 27, 1998
191. United Kingdom and Ireland Controlled Release Society Symposium, Aston University, Birmingham, England. "Polymers for CNS Delivery." January 8, 1999.
192. Tri-National Meeting of the Israeli, German, and Finnish Neurosurgical Societies, Eilat, Israel. "Current and Future Applications of Polymer Technology for Brain Tumor Therapy." January 22, 1999.
193. Johns Hopkins Medicine Technology Fair, Baltimore, MD. "New Delivery Approaches for Cancer and for the Brain." March 19, 1999.
194. American Society for Experimental Neuro-Therapeutics, Inc., Washington, DC. "New Technologies for Effective Delivery of Neurotherapeutic Agents." March 20, 1999
195. The American Association of Neurological Surgeons, New Orleans, LA. "Craniotomy for Tumor: Outcomes in High Volume Versus Low Volume Hospitals." April 26, 1999.
196. Johns Hopkins Medical Institutions, Surgical Grand Rounds, Baltimore, MD. "New Approaches for Brain Tumor Therapy." May 8, 1999.
197. Johns Hopkins Medicine Faculty Leadership Development Program, Baltimore, MD. "Fulfilling the Research Mission: Leadership Challenges (Clinical Research). June 3, 1999.
198. Controlled Release Society, Boston, MA. "Polymer Delivery of Therapeutic Agents for Cancer." June 24, 1999.
199. Macromolecular Drug Delivery Conference, Breckenridge, CO. "Polymeric Delivery of Cytokines for the Treatment of Tumors." July 16, 1999.
200. Harvard Medical School Postgraduate Course, Tumors of the Central Nervous System: Brain Tumor Management, Boston, MA. "Interstitial Chemotherapy for Brain Tumors." September 13, 1999.
201. Fifth Anticancer Drug Discovery and Development Symposium, Detroit, MI. "Polymeric Local Delivery of Therapeutic Agents to Treat Brain Tumors." September 24, 1999.
202. Visiting Professor, Walter Reed Army Medical Center, Washington, DC. "Advances in Local Therapy for Brain Tumors." "Development of a Research Program." Oct 25, 1999.
203. Congress of Neurological Surgeons, Boston, MA. Moderator, Luncheon Seminar, "Current Management of Malignant Gliomas." November 2, 1999.
204. Visiting Professor, St. Joseph Medical Center, Baltimore, MD. "New Approaches for Brain Tumor Treatment." December 3, 1999.
205. US-Japan Symposium on Drug Delivery Systems, Kaanapali Beach, Lahaina, HI. "Clinical Development Utilizing Biodegradable Polymer Implants." December 12-17, 1999.
206. Visiting Professor, University of California, Irvine. "Brain Tumor Treatment-2000." January 12, 2000.
207. Visiting Professor, Cedars-Sinai Medical Center, Los Angeles, CA. "Brain Tumor Treatment-2000." January 12, 2000.
208. Visiting Professor, University Hospital of Brooklyn, Health Science Center, Brooklyn, NY. "Adjunct Treatment of Recurrent Glioblastoma Multiforme." January 27, 2000.
209. American Association of Neurological Surgeons, San Francisco, CA. "New Developments in Local Therapy of Brain Tumors." April 10, 2000.

210. AANS/CNS Section on Tumors Satellite Symposium, San Francisco, CA. "Implantable Biodegradable Polymers." April 13, 2000.
211. The Society of Neurological Surgeons, Pasadena, CA. "Brain Tumor Therapy," May 21, 2000. (Grass Foundation Award)
212. La Genetica Nelle Neuroscienze, Terni, Italy. "Neuro-Oncology Clinical Lecture." July 3, 2000.
213. Visiting Professor, Yale University, New Haven, CT. "New Approaches to Brain Tumor Therapy." Sept 6, 2000.
214. Controlled Release Society, International Symposium on Tumor Targeted Delivery Systems, Bethesda, MD. "Polymer Drug Delivery for Cancer Therapy: Clinical Observations." September 25, 2000.
215. Congress of Neurological Surgeons, San Antonio, TX. Moderator, Luncheon Seminar, "Novel Therapies for Malignant Gliomas." September 26, 2000.
216. Society for Neuro-Oncology, Annual Meeting, Chicago, IL. Moderator, Session: "Therapeutic Studies 1" November 10, 2000.
217. Pivotal Glioma Trial Meeting, San Juan, Puerto Rico. "Gliadel Clinical Presentation." November 18, 2000.
218. South Florida Brain Tumor Association, Fort Lauderdale, FL. Keynote Address: "Advances in Brain Tumor Therapy." Jan 20, 2001.
219. MD Anderson Cancer Center, Houston, Texas, Neurosurgical Oncology Symposium: The Decade Ahead. "Intracavitary Drug Delivery: Clinical Potential." Jan 27, 2001
220. Clinical Neuroscience Lecture, Johns Hopkins School of Medicine, Baltimore, MD. "Developments in Brain Tumor Therapy." Feb 5, 2001.
221. The Cleveland Clinic Foundation, Neuro-Onc Symposium, Naples, FL. "Intratumoral Chemotherapy," February 19, 2001
222. "The Structure and Function of NABTT Consortium" Feb 20, 2001.
223. Baltimore Women's Forum, Baltimore, MD. "The Brain and Intelligence in the New Century." March 7, 2001.
224. Visiting Professor, University of Pittsburgh. Pittsburgh, PA. "New Approaches to Brain Tumor Therapy" and "Novel Brain Tumor Therapies." March 21, 2001.
225. American Association of Neurological Surgeons, Toronto, Canada. Discussant at Scientific Session for abstract "Phase I Clinical Trial of Adenovirus-mediated p53 Gene Therapy for Recurrent Glioma: Biological and Clinical Results," presenter: Dr. Frederick F. Lang. April 25, 2001.
226. Visiting Professor, Department of Neurosurgery, George Washington University, Washington DC. "Neuro-Oncology Advances." May 23, 2001.
227. Johns Hopkins Medical and Surgical Association Biennial Meeting, Johns Hopkins, Baltimore, MD. "New Developments in tumor Therapy." June 8, 2001.
228. Update in Clinical Neurosciences, Baltimore, MD. Moderator: "Discussion of Case Studies". June 22, 2001.
229. Accelerate Brain Cancer Cure Retreat (ABC), Santa Barbara, CA. Moderator: "Latest on Brain Cancer" July 13, 2001.
230. The Johns Hopkins University School of Medicine, Neurology Medical Student Clerkship Lecture, Baltimore, MD. "Brain Tumors and Subarachnoid Hemorrhage." July 17, 2001.
231. Polymers for Advanced Technologies Symposium, Eilat, Israel. "Brain Tumors Treatments with Polymer Delivery Systems: Preclinical and Clinical Results." Sept 5, 2001.
232. Johns Hopkins University and Technion-Israel Institute of Technology, Baltimore, MD. "Brain Tumor Research." September 11, 2001.
233. The Congress of Neurological Surgeons, San Diego, CA. Moderator - Luncheon Seminar, "Novel Therapies for Malignant Brain Tumors." October 2, 2001. Speaker - "Therapeutic Discoveries." October 3, 2001.
234. Johns Hopkins University School of Medicine, Dean's Lectures, Baltimore, MD. "Advances in Brain Tumor Therapy." Dec 3, 2001.
235. FDA Oncology Drugs Advisory Committee (ODAC), Bethesda, MD. "Gliadel Clinical Trials." Dec 6, 2001
236. The 6th US-Japan Symposium on Drug Delivery Systems, Maui, HI. "Biodegradable Polymer Implants to Treat Brain Tumors." Dec 21, 2001.
237. Visiting Professor, Barrow Neurological Institute, Phoenix, AZ. "Progress in Brain Tumor Therapy." Jan 11, 2002.
238. Johns Hopkins Town Meeting, Baltimore, MD. "Advances in Neurosurgery." Feb 7, 2002.
239. Medical Student Forum, Baltimore, MD. "Women in Surgery." Mar 5, 2002.
240. GMP Scientific Retreat, Hallandale Beach, FL. "Neuroscience: Advances in Drug Delivery to the Brain." April 28, 2002.

241. Johns Hopkins, Baltimore, MD. "Jeffery Williams Memorial." May 30, 2002.
242. Visiting Professor, Dartmouth University Medical Center, New Hampshire. "New Approaches to Brain Tumor Therapy." July 26, 2002.
243. Congress of Neurological Surgeons, Philadelphia, PA. Moderator, Luncheon Seminar "Controversies in Brain Tumor Management." Sept 24, 2002.
244. Premiere "Red Dragon", Senator Theater, Baltimore, MD "Dedication for Brain Tumor Research." Oct 7, 2002.
245. The University of Minnesota Brain Tumor Symposium, Doubletree Hotel, Bloomington, MN. "Advances in Brain Tumor Therapy." October 25, 2002.
246. Mt. Sinai School of Medicine-4th Annual Advances in Neurosurgery, Roosevelt Hotel, New York, NY. "Molecular and Chemotherapeutic Advances." Dec 8, 2002.
247. Johns Hopkins Palm Beach Meeting, Palm Beach, FL. "Neurosurgery." Jan 22, 2003.
248. Guilford Advisory Board, Carlyle Hotel, New York, NY. Moderator of the Brain Tumor Advisory Board. Feb 8, 2003.
249. Thirty Years of Angiogenesis Research: A Symposium in Honor of Dr. Judah Folkman. Children's Hospital, Boston, MA "New Approaches to Brain Tumor Therapy." Feb. 28, 2003.
250. GMP 4th Annual Scientific Retreat, Ft. Lauderdale, FL. "Neurosurgery Update." Mar 9, 2003.
251. American College of Surgeons Oncology Group, Durham, NC. "New Brain Tumor Trials." Mar 27, 2003.
252. Johns Hopkins Biennial Meeting, Baltimore, MD. "New Directions in Neurosurgery." May 2, 2003.
253. Visiting Professor, Dept of Neurosurgery, Emory University, Atlanta, GA. "Treatment of Brain Tumors." Nov 6, 2003.
254. Keynote Speaker, RUNN Conference, Woods Hole, MA. "Research Advances in Neurooncology." Nov 13, 2003.
255. The 7th US-Japan Symposium on Drug Delivery Systems, Maui, HI. "New Approaches to Brain Tumor Therapy." Dec 14-19, 2003.
256. Lecture, Palm Beach Neurosurgical Meeting, Palm Beach, FL. "Academic Neurosurgery." Jan 24, 2004.
257. Lecture, Fifteenth Annual Cancer Progress Conference, New York, NY. "Novel Formulation Technologies for Cancer Therapy." March 9, 2004.
258. The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Translational Research Conference. Baltimore, MD "Targeted Therapy for Brain Tumors." March 10, 2004.
259. American Association of Neurological Surgeons, Orlando, FL. "Targeted Therapy for Brain Tumors." May 5, 2004.
260. Lecture, AANS Tumor Section Symposium, Orlando, FL. Session: "Controversies in Neurosurgical Oncology." May 6, 2004.
261. The American Association of Pharmaceutical Scientists, National Biotechnology Conference, Boston, MA. "Biodegradable Polymers as Methods to Enhance Drug Delivery to Tumors of the CNS." May 18, 2004.
262. Symposium Moderator, Genetics and Regeneration in Neuroscience, 4th International Congress, Terni, Italy. "Advances in Radiation Therapy in the CNS. June 30, 2004.
263. Lecture, The Second Technion-Johns Hopkins Symposium in Medical Sciences and Biomedical Engineering, Technion University, Haifa, Israel. "Developing New Therapies for Brain Tumors: From Laboratory to Bedside. Oct 17, 2004.
264. Johns Hopkins University & Hospital, Evolution of Treatment Options for Adult Patients with Brain Tumors, Baltimore, MD. "Neurosurgical Management of Pituitary Tumors." Oct. 29, 2004.
265. Medical Grand Rounds Speaker, Johns Hopkins University, Baltimore, MD. "New Therapies for Brain Tumors." Dec 17, 2004.
266. Mount Sinai Lecture, New York, NY. "Adjuvant Treatments for Gliomas." Dec. 18, 2004.
267. Technion Lecture, Haifa, Israel. "New Approaches to Brain Tumor Therapy." Dec. 27, 2004
268. Weizmann Neurobiology seminar, The Weizmann's Institute, Rehovot, Israel. "Therapeutic Delivery to the Brain: Challenges and Opportunities." January 3, 2005
269. Johns Hopkins Brain Tumor Research Seminar Series, Baltimore, MD. "Therapeutic Delivery to the Brain: Challenges and Opportunities." January 10, 2005
270. Visiting Professor, Neurosurgery Grand Rounds, Stanford, CA. "New Approaches to Brain Tumor Therapy." February 11, 2005
271. Keynote Speaker, Society for Biomaterials, Memphis, TN. "Technology Innovation and Development of Gliadel™ for the Treatment of Brain Tumors." April 30, 2005.

272. Hopkins Biotech Network, Baltimore, MD. "Finding Harmony Between Academic Research and Entrepreneurship" Panelist on Gliadel® . May 5, 2005.
273. The Noun Shavit Memorial Lecturer, Ben-Gurion University, Beer Sheva, Israel.
The 8th Coleman Fellow in Life Sciences presented to Prof Henry Brem,
"Brain Tumor Therapy: Advances from Laboratory Research." May 23, 2005
Dept of Chemical Engineering: "Penetrating the Brain for Therapeutic Delivery." May 24, 2005.
Dept of Life Sciences: "Brain Tumor Angiogenesis." May 25, 2005
274. Johns Hopkins Medical and Surgical Association Biennial Meeting, Baltimore, MD. "New Directions in Neurosurgery at Johns Hopkins." June 3, 2005.
275. E. Llewelyn Thomas lecturer, The Institute of Biomaterials and Biomedical Engineering, Toronto, CA "Brain Tumor Therapy" June 7, 2005
276. Updates in Neuro-Oncology, Arezzo, Italy. "Translating Research Findings into Clinical Applications." June 25, 2005
277. Food and Drug Administration, Rockville, MD. "Development of New Therapy for Brain Tumors." September 26, 2005
278. Congress of Neurological Surgeons Meeting, Boston, MA. Roundtable: Neurosurgeons as Clinical Investigators—An Open Forum on the Future of Brain Tumor Research.
Discussion: "Clinical Investigators, Industry Based Trials and Conflicts of Interest, Education and Reward Paradigms, Mechanisms by which AANC/CNS Can Promote Clinical Research and Funding for Clinical Research." October 11, 2005.
279. ATNS (Advanced Technologies in the Neurosciences), American Academy of Arts and Sciences, Cambridge, MA. "Timetables for Scientific Advances into Practice: Brain Tumor Therapy Case Studies." October 19, 2005.
280. RUNN Conference, Woods Hole, MA. "Brain Tumor Therapy." October 27, 2005.
281. Johns Hopkins Biotechnology Meeting on Neurosurgery, Chicago, IL. "Advances in Neurosurgery Technology". April 10, 2006.
282. Rambam Medical School, Haifa, Israel. " Advances in Brain Tumor Therapy." April 20, 2006.
283. Asilomar 006 Brain Tumor Research and Therapy Meeting at Silverado, CA "Targeting Brain Tumor Therapy." April 27, 2006.
284. Lecture: Johns Hopkins General Surgery Interns. Johns Hopkins Hospital, Baltimore, MD. "Neurosurgical problems and emergencies." May 4, 2006.
285. Second Joint American-Israeli Conference on Cancer, Jerusalem, ISRAEL "New Approaches to Brain Tumor Therapy." June 30, 2006
286. Symposium Honoring Robert S. Langer – 30 Years in Science. Boston, MA "Dr. Langer's Impact on Medicine." July 14, 2006.
287. Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN "Development of New Therapies for Brain Tumors." August 24, 2006.
288. Congress of Neurological Surgeons, Chicago, IL. Seminar M07 Moderator "Malignant Gliomas: Current Surgical and Adjuvant Strategies." Oct. 9, 2006.
289. American Academy of Neurological Surgery, Ritz Carlton Reynolds Plantation, GA. "Directed Therapy with Polymers for Brain Tumors." October 21, 2006.
290. RUNN Conference, Woods Hole, MA. "Brain Tumor Therapy." October 22, 2006.
291. The Johns Hopkins Health System Corporation and The Johns Hopkins Hospital Board. Baltimore, MD "Neurosciences Safety Initiatives." December 5, 2006.
292. David H. Koch Building Dedication, Johns Hopkins School of Medicine, Baltimore, MD.
"From Discovery to Results." December 5, 2006.
293. Visiting Professor, Grand Rounds, University of Medicine and Dentistry of New Jersey, Newark, NJ.
"Brain Tumor Therapy: From Bench to Bedside." December 13, 2006.
294. Florida Brain Tumor Association, 8th biennial Brain Tumor Conference, Fort Lauderdale, FL. "Developing New Brain Tumor Therapies." January 20, 2007.
295. Discussant for Scientific Session, American Association of Neurological Surgeons, Washington, DC. Young Investigator Award Presentation: "Autologous Heat Shock Protein Vaccine for Recurrent Glioma: Results of a Phase I Clinical Trial," T. Parsa, et al. April 16, 2007.
296. The Johns Hopkins Medical and Surgical Association, 2007 Biennial Meeting and Reunion, Baltimore, MD.
Opening Remarks "New Directions in NUS at Johns Hopkins." June 1, 2007.

297. 2007 Rosomoff Visiting Professor, Department of Neurosurgery, University of Miami, Miami, Florida. "New Approaches to Brain Tumor Therapy." and "Brain Tumor Angiogenesis." June 2, 2007.
298. 56th Congresso Nazionale SINch, Rome, Italy "New Therapies for Malignant Gliomas." June 26, 2007.
299. 3rd International Meeting Updates in Neuro-Oncology, Cortona, Arezzo, Italy "Developing New Therapies for Brain Tumors." June 30, 2007.
300. Presentation, Vision 2020-The 2006 Report of the University Committee on the Status of Women at the Johns Hopkins University, Baltimore, MD. "Progress in Neurosurgery." September 10, 2007.
301. The Congress of Neurological Surgeons, San Diego, CA.
Seminar Moderator : "Malignant Gliomas: Future Treatment Alternatives." September 17, 2007.
Luncheon Seminar: "How to Pursue an Academic Career in Neurosurgery." September 18, 2007.
Section on Tumors II – Senior Discussant: "Gene Therapy." September 19, 2007.
302. 2007 International Workshop on Glioma Research and Therapy; Brigham and Women's Hospital, Harvard Medical School; Boston, MA. "Surgical Therapies for Glioma." Oct 10-13, 2007
303. Lecture, RUNN Course, Woods Hole, MA. "Brain Tumor Therapy." October 21, 2007.
304. Moderator and Scientific Program Chair. The American Academy of Neurological Surgery, Lake Las Vegas, NV. October 31 – November 3, 2007.
305. Plenary Lecture, 9th US-Japan Symposium on Drug Delivery Systems, Maui, HI. "Targeted Brain Tumor Therapy." December 17, 2007.
306. Guest Lecturer, The Arthur and Sonia Labatt Brain Tumour Research Centre, The Hospital for Sick Children, Toronto, Canada. "Targeting Brain Tumor Therapy." January 24, 2008.
307. Neurosurgery Resident Lecture, The Hospital for Sick Children, Toronto, CA. "Brain Tumor Angiogenesis." January 25, 2008.
308. Visiting Professor, Neurosurgery Grand Rounds, Cornell University, Ithaca, NY "Developing New Therapies for Brain Tumors." Feb. 11, 2008.
309. Visiting Professor, Neurosurgery Grand Rounds, Montefiore Hospital, NY. "Brain Tumor Therapy." March 24, 2008.
310. American Association of Neurological Surgeons, Chicago, IL. Breakfast seminar - Tumor Neurosurgery: Meet the Experts. "Targeting Brain Tumor Therapy." May 1, 2008.
311. Guest Lecturer, The Johns Hopkins University Department of Neurosurgery Symposium on Multidisciplinary Perspectives in Brain Tumor Management, Puerto Vallarta, Mexico. "Brain Tumors: The Hopkins Experience." August 14, 2008.
312. Guest Lecturer, 7th Annual International Neuro-Oncology Updates, Baltimore, MD. "Brain Tumors: Targeted Therapy." September 18, 2008.
313. Congress of Neurological Surgeons Meeting, Orlando, FL. "Preparing for an Academic Laboratory Career: Residency and the Early Faculty Years." Sept 22, 2008.
314. Congress of Neurological Surgeons Meeting, Orlando, FL. "How to Pursue an Academic Career in Neurosurgery." Sept 23, 2008.
315. RUNN Course, Woods Hole, MA. "Advances in Brain Tumor Therapy." October 19, 2008.
316. Visiting Professor, Cedars-Sinai Medical Center, Los Angeles, CA. Dinner Lecture "Advances in Brain Tumor Therapy," Nov 13, 2008.
317. The Johns Hopkins Neurosurgery Grand Rounds "Developing New Treatments for Brain Tumors," Nov 14, 2008.
318. Speaker, Neuro Critical Care Unit Research Seminar, Johns Hopkins University, Baltimore, MD "Advances in Brain Tumor Therapy," November 18, 2008
319. Guest Lecturer, Folkman Symposium, Harvard Medical School, Boston, MA. "Dr. Folkman's Impact on Neurosurgery" Dec 5, 2008.
320. George Washington University School of Medicine, Washington, DC. "Targeted Brain Tumor Therapy." January 15, 2009.
321. Keynote Speaker, 44th Annual Pharmaceutical Technologies Arden Conference (AAPS) Arden House, West Point, NY. "How Drug Delivery and Targeting will Impact the Future of Medicine." February 2, 2009.
322. Invited Lecturer: "Brain Tumor Therapy: Gliadel as a Case Study." February 2, 2009.
323. The Johns Hopkins Neuroscience Nurse Clinician II Workshop, Baltimore, MD. "Brain Tumor Therapy: The Evolution of Gliadel." February 23, 2009.
324. Visiting Professor, 35th Annual symposium, Barrow Neurological Institute, Phoenix, AZ. "Advances in Brain Tumor Therapy." March 5, 2009.

- 325. Visiting Professor, 35th Annual symposium, Barrow Neurological Institute, Phoenix, AZ. March 6, 2009.
- 326. Guest Lecturer, The Baltimore City Medical Society, Baltimore, MD. "Advances in Brain Tumor Therapy." March 10, 2009.
- 327. Johns Hopkins Medical Institution, School of Medicine Neuroscience Lecture, Baltimore, MD "Classification of Brain Tumors." March 26, 2009.
- 328. Visiting Professor, Grand Rounds, Henry Ford Hospital, Detroit, MI. "Developing New Targeted Treatments for Brain Tumors." April 1, 2009.
- 329. 2009 American Association for Cancer Research, Denver, CO. Co-Chair, New Concepts Session: Invading the Sanctuary: New Approaches to Brain Metastases. "Introduction: Importance of Brain Metastasis" April 19, 2009.
- 330. The Musella Foundation: Central NJ. Brain Tumor Support Group: You are not Alone!! "Advances in Brain Tumor Therapy." May 9, 2009.
- 331. Henry A. Shenkin, MD Lecture, Temple University, Philadelphia, PA. "Developing New Targeted Treatments for Brain Tumors." June 12, 2009.
- 332. Johns Hopkins Neurosurgical Oncology Grand Rounds, Johns Hopkins University, Baltimore MD. "Developing New Targeted Treatments for Brain Tumors." July 24, 2009
- 333. EISAI, Co., LCD, Baltimore, MD. "Brain Tumor Therapy: Gliadel as a Case Study." August 21, 2009
- 334. 1st. Annual Johns Hopkins Pituitary Tumor Center, Patient Education Day, Mount Washington, MD. "Surgical Therapy of Pituitary Tumors." September 26, 2009.
- 335. NCCN² Annual Forum: Innovative Diagnostics and Therapeutics in Cancer Care. New York, NY. "Use of BCNU Wafers in Aggressive Gliomas." October 2, 2009.
- 336. RUNN COURSE, Woods Hole, MA. "Advances in Brain Tumor Therapy." October 17-24, 2009.
- 337. American Academy of Neurological Surgery, Palm Beach, FL. "High Grade Glioma & Data Supporting Maximal Resection." Nov 4-7, 2009
- 338. University of North Carolina Lineberger Comprehensive Cancer Center Clinical Symposium, Chapel Hill, NC. "Translating Scientific Advances into Clinical Care for Brain Tumors." November 7, 2009.
- 339. 10th Biannual US-Japan symposium on drug Delivery Systems, Maui, HI. "Advances in Brain Tumor Therapy." December 17, 2009.
- 340. EISAI Meeting, Chicago, IL "Brain Tumor Therapy: Gliadel as a Case Study". January 26, 2010
- 341. Johns Hopkins University School of Medicine Surgery Grand Rounds, Baltimore, MD. "Translating Scientific Advances Into Clinical Care for Brain Tumors ", April 1, 2010
- 342. Johns Hopkins Neuroscience Nursing, Baltimore, MD. "Translating Scientific Advances Into Clinical Care for Brain Tumor Patients." April, 26, 2010.
- 343. 14th BiAnnual Canadian Neuro-Oncology Meeting, Niagara-on-the-Lake, Ontario, Canada. "Developing New Brain Tumor Approaches." May 15, 2010.
- 344. Traumatic Brain Injury in Professional Football: An Evidence-Based Perspective. Washington, DC. "Setting the Tone." June 2, 2010
- 345. 15th Van Wagenen Professor and Lecturer, Rochester, NY Grand Rounds Lecture "New Approaches to Brain Tumor Therapy". June 18, 2010.
- 346. 15th Van Wagenen Professor and Lecturer, Rochester, NY Grand Rounds Lecture "Neurosurgery at Johns Hopkins". June 18, 2010.
- 347. 9th International Meeting: Updates in Neuro-Oncology, Cortona, Italy "Developing New Therapies for Malignant Gliomas". July 3, 2010
- 348. 11th Hugo V Rizzoli Distinguished Surgical Lecture in Neurosurgery, Johns Hopkins University, Baltimore, MD. "Brain Tumor Surgery". November 15, 2010
- 349. Washington Academy of Neurosurgery, George Washington University, Washington, DC. "Improving Access to Neurosurgical Care". November 15, 2010
- 350. 4th Annual Johns Hopkins Skull Base Course. Baltimore, MD. "Craniofacial Approaches to the Skull Base: From Open to Endoscopic". December 3, 2010
- 351. New Clinical Building Partnering Session, Johns Hopkins, Baltimore, MD "Brain Tumor Surgery". December 9, 2010
- 352. Howard Hughes Medical Student Symposium, Johns Hopkins, Baltimore, MD December 13, 2010
- 353. Keynote Speaker, Johns Hopkins Medical Student Research Day, Baltimore, MD. January 5, 2011
- 354. Nanomedicine Conference at Cedars-Sinai Medical Center in Los Angeles, CA "Brain Microchips to Treat Brain Tumors". March 4, 2011

355. Johns Hopkins Medicine- Brain Science Institute Brain Night. Baltimore MD “Challenges of Treating Tumors in the Brain” March 9, 2011
356. JHMI International Neurosurgery, Baltimore, MD. “Johns Hopkins Neurosurgery Innovations”, March 23, 2011
357. Genes to Society, Johns Hopkins University School of Medicine, Baltimore, MD. “Neuroscience Clinical Correlations”. May 4, 2011
358. Johns Hopkins Neuroscience Nursing, Baltimore, MD. “Translating Scientific Advances Into Clinical Care for Brain Tumor Patients.” May 16, 2011
- 359. Commencement Address , Johns Hopkins University School of Medicine, Graduation, Baltimore, MD May 24, 2011**
360. Johns Hopkins Medicine-A Womans Journey Executive Breakfast, Washington, DC “Heads Up: The Ability of the Brain to Recover” May 18, 2011
361. Plenary Lecture, Controlled Release Society 38th Annual Meeting and Exhibition, National Harbor, MD “Challenges of Therapeutic Delivery to the Brain”. August 3, 2011
362. Controlled Release Society 38th Annual Meeting and Exhibition, National Harbor, MD. “Healthcare of the Future: How Pharmaceutical Advances Are Changing Medical Practice”. August 3, 2011
363. Fourth Annual Quinones-Hinojosa Stem Cell Luncheon for Patients, Mt. Washington Conference Center, Baltimore, MD. “Educating Patients on Research Therapies for Brain Tumors”. August 6, 2011.
364. Session Moderator, 10th Annual International Neuro-Oncology Updates. “Brain Tumor Clinical Management”. Nashville, TN, September 15, 2011
365. Research Update in Neuroscience for Neurosurgeons (RUNN), Marine Biological Laboratory Woods Hole, Massachusetts. “Advancing Brain Tumor Therapy”. October 30 – November 6, 2011.
366. Plenary Lecture, Association of American Medical Colleges Annual Meeting, Denver, CO. “Changing Times, Changing Partnerships: Propelling Research by Rethinking Collaborations,” Nov. 6, 2011
367. Johns Hopkins Medicine-A Womans Journey Seminar Series, Baltimore, MD “Repairing the Brain”. November 12, 2011.
368. Concurrent Meetings of the Boards of Trustees of THE JOHNS HOPKINS HEALTH SYSTEM CORPORATION and THE JOHNS HOPKINS HOSPITAL, Baltimore MD. “Innovations in Neurosurgery Safety”. December 5, 2011
369. Visiting Professorship, Stuart Rowe Lectureship, University of Pittsburgh, Pittsburgh, PA. “Advancing Brain Tumor Therapy” December 7, 2011.
370. Visiting Professorship, Stuart Rowe Lectureship, University of Pittsburgh, Pittsburgh, PA. “Improving Access to Neurosurgical Care” December 7, 2011.
371. Plenary Lecture, 11th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii. “Delivery of Therapeutic Agents to the Brain” December 19, 2011.
372. Deans Research Integrity Lecture Series, Johns Hopkins University, Baltimore, MD. “Research Integrity, The Scientist as a Responsible Member of Society”. January 23, 2012
373. Top of the World Meet Top of China Symposium, BeiJing, China. “Opening Remarks” at Part 1., March 6, 2012
374. Top of the World Meet Top of China Symposium. Xi’An, China . “Drug Delivery for Brain Tumors” at Part 2., March 8, 2012
375. Top of the World Meet Top of China Symposium. “Topic 1”.at Seminar, ShangHai, China. March 10, 2012.
376. Johns Hopkins University, Neurosurgery Grand Rounds, Baltimore, MD. Developing New Brain Tumor Therapies. May 31, 2012.
377. Accelerating US-Israel Neuroscience and Neurotechnology Collaborations. National Academy of Sciences, Washington, DC. “Intraoperative Brain Tumor Therapy”. September 12, 2012.
378. Plenary Lecture, 11th Annual International Neuro-Oncology Updates. Baltimore, MD. “Developing Brain Tumor Therapies”.September 20, 2012.
379. Johns Hopkins Hospital Board of Trustees Quality Improvement Committee. Baltimore, MD. “How can Neurosurgery continue to provide and improve patient care”. October 22, 2012.
380. Vanderbilt University Medical Center, Department of Neurosurgery Grand Rounds, Nashville TN. “Developing New Approaches to Brain Tumor Therapy”. October 26, 2012.
381. The Second Israeli Medical Student’s Conference. The Treatment for Brain Cancer-The Whole Picture. Tel Aviv University, Tel Aviv, Israel. “The Neurosurgical Experience at Johns Hopkins”. December 28, 2012.
382. University of Maryland, Department of Neurology Grand Rounds, Baltimore, MD. “Developing Brain Tumor
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- Therapies". February 6, 2013.
383. Dean's Research Integrity Lecture Series. Johns Hopkins University, Baltimore, MD. "Research Integrity, the Importance of the Scientist as a Responsible Member of Society". February 14, 2013.
384. Johns Hopkins University Executive Support Staff Group, Baltimore, MD. "Brain Repair". March 15, 2013.
385. Israel Neurosurgery Society Annual Meeting, Herzilya, Israel. Session II **From Experimental To New Horizons in Clinical Neurosurgery** "Technology to Improve Brain Tumor Outcomes". March 20, 2013. Session VIII **New Modalities in Brain Tumor Surgery** "Developing New Therapies for Brain Tumor Therapy". March 22, 2013.
386. Keynote Speaker, Office of Research Integrity at 20, ORI and Johns Hopkins University, Baltimore, MD. "Reassessing Research Integrity". April 4, 2013
387. 81st AANS Annual Scientific Meeting Discussant on Oral Abstract Presentation , New Orleans, Louisiana. "Development of an MRI-guided Delivery and Molecular Targeting System for Glioblastoma multiforme Theranostics based on Surface Enhanced Raman Scattering Nanoparticles". April 27 to May 1, 2013.
388. The Michael S. Voynick Lecture in Neuro-Oncology. Yale School of Medicine, New Haven, CT. "Developing Brain Tumor Therapies". May 8, 2013.
389. Institute of Medicine of the National Academies, Roundtable on Translating Genomic-Based Research for Health, Washington, D.C. "Assuring Integrity While Facilitating Innovation in Medical Research". June 5, 2013.
390. Wake Forest University School of Medicine, 10th Anniversary Brain Tumor Center of Excellence Annual Retreat, Winston-Salem, NC. "Developing Brain Tumor Therapies". September 20, 2013.
391. Teva Pharmaceutical Industries & Johns Hopkins University, Baltimore, MD. " Propelling Research by Rethinking Collaborations". September 30, 2013
392. Johns Hopkins University School of Medicine, Baltimore, MD. Diseases and Disorders of the Nervous System Course. "Developing Brain Tumor Therapies". October 17, 2013
393. AANS/CNS Section on Tumors and Society of Neuro-Oncology Abhijit Guha Award and Plenary Lecture, San Francisco, CA. "Developing Brain Tumor Therapies". October 22, 2013.
394. Research Update in Neuroscience for Neurosurgeons (RUNN), Marine Biological Laboratory Woods Hole, Massachusetts. "Advancing Brain Tumor Therapy". October 29, 2013.
395. Weitzman Institute, Rehovot, Israel. "Understanding and Exploiting the Genetic Basis of Brain Tumors". October, 2013
396. Plenary Lecture, EANS Tumor Section-AANS/CNS Section on Tumors-Annual International Neuro-Oncology Updates. Tel Aviv, Israel. " How to Build a Neuro-Oncology Program". November 13, 2013.
397. Keynote speaker, A Cushing Neuroscience Institute Symposium, Hofstra North Shore LIJ School of Medicine, The Feinstein Institute for Medical Research, New York Neurosurgery:, Manhasset, NY. "Intralesional Treatment of Brain Tumors". December 13, 2013
398. US-Japan Symposium on Drug Delivery Systems. Lahaina, Maui, Hawaii. "Developing Brain Tumor Therapies" December 16, 2013.
399. National Institutes of Health, NINDS Grand Rounds. Bethesda, MD. "Effectively Delivering Therapies to the Brain". February 11, 2014.
400. CaRTT Translational Research Lecture Series: University of Western Ontario and London Health Sciences Center. London, Ontario, Canada. "Translational Research for Brain and Metastatic Brain Tumor Patients". February 20, 2014.
401. Montefiore Medical Center Grand Rounds, Albert Einstein College of Medicine, Bronx, NY. "Treating Brain Tumor Patients" February 24, 2014.
402. American Friends of Tel Aviv University TAU on the Potomac. Four Seasons Hotel in Washington, DC. "Making cancer a chronic disease." March 8, 2014.
403. Centers for Medicare and Medicaid Services, ICD-10-CM/PCS Coordination and Maintenance Committee Meeting. Baltimore, MD. "Gliadel" March 19, 2014.
404. JHU Fifth Annual Spinal Disorders: Updates in Diagnosis and Management, Johns Hopkins Hospital. April 19, 2014.
405. Johns Hopkins University, Neurosurgery Grand Rounds, Baltimore, MD. "How to Build a Neuro-Oncology Program". April 24, 2014
406. Brainiacs: Recent Advances in Neuroscience 2014 Science Writers Boot Camp. The National Press Club, Washington D.C. "Breakthrough Treatments: Brain Tumor vaccines and Direct-To-The Brain Chemotherapy." April 28, 2014.

407. NSS Case Conference Leaders of Brain Science Lunches. Johns Hopkins University School of Medicine, Baltimore MD. May 7, 2014.
408. Recent Advances in Targeted Delivery of Biologics and Small Molecule Drugs. Center for Drug Evaluation and Research, Food and Drug Administration (FDA), Silver Spring, MD. "Developing Brain Tumor Therapies; Effectively Delivering Therapies to the Brain." May 19, 2014.
409. Johns Hopkins University School of Medicine, Baltimore, MD. "Helping Patients with Brain Tumors". May 29, 2014
410. Keynote Speaker, Brain Tumor Biotech Summit 2014. The Weill Cornell Brain and Spine Center, Weill Cornell Medical College, NY, NY. "BCNU impregnated Gliadel wafers: lessons learned about Biotech and Brain Tumors". June 6, 2014.
411. The Institute for Clinical and Translational Research Translational Research Communities, Johns Hopkins University, Baltimore, MD. "Overcoming Barriers: Gliadel Wafers as a Case Study". July 9, 2014.
412. 13th Annual International Neuro-Oncology Updates, Boston Massachusetts. "How new treatments for Gliomas get accepted: Opportunities VS Obstacles". September 4, 2014.
413. Keynote Speaker, The 9th Biennial Meeting of the Israeli Chapter of the Controlled Release Society. Nanomedicines in Cancer Treatment. Maalot Tarshiha, Western Galilee, Israel. "Targeted Brain Tumor Therapy". September 9, 2014.
414. Johns Hopkins University, "Henry Brem Professorship". Palm Beach FL. October 6, 2014.
415. Johns Hopkins University, Baltimore MD. "Solomon Snyder and George Heuer Professorship". October 10, 2014.
416. Research Update in Neuroscience for Neurosurgeons (RUNN), Woods Hole, MA. "Advances in Brain Tumor Therapy". October 28, 2014.
417. Research Update in Neuroscience for Neurosurgeons (RUNN), Woods Hole, MA. "How to Pursue an Academic Career in Neurosurgery". October 28, 2014.
418. Diseases and Disorders of the Nervous System, Johns Hopkins University, Baltimore, MD. "Developing Brain Tumor Therapies". October 30, 2014.
419. Speaker and Moderator, Religious, Medical, Ethical and Legal Perspectives on End of Life Issues. Institute for Jewish Continuity, The University of Maryland Schools of Medicine, Nursing, Pharmacy and Social Work, and The Maryland Healthcare Ethics Committee Network at the UM Carey School of Law. Panel Discussion: "Overview of Case Study in an Adult". November 14, 2014.
420. Johns Hopkins Hospital Womens Advisory Board, Baltimore, MD. "Neurosurgery at Johns Hopkins". February 23, 2015.
421. The Inaugural Indo-US Translational Neuroscience Symposium: Biomarker Discovery and Validation. Johns Hopkins University. "Translational Neuroscience: Johns Hopkins Neurosurgery". February 25, 2015.
422. Visiting Professor, Stanford University Department of Neurosurgery Grand Rounds Lecture, Stanford, CA. "Developing New Treatments for Brain Tumors". April 24, 2015.
423. AANS/CNS Section on Tumors 11th Biennial Satellite Symposium. Washington, D.C. "Surgical Trials: Gliadel". May 1-2, 2015.
424. 14th International Updates in Neuro-Oncology Meeting, Presidential Address. Cortona Italy. July 2, 2015.
425. 1st Annual HARVARD-JOHNS HOPKINS Multidisciplinary Symposium, Harvard Club, Boston, MA. "Lessons learned from Dr. Murray". September 19, 2015.
426. Keynote Lecture, 1st Annual HARVARD-JOHNS HOPKINS Multidisciplinary Symposium, Shriners Hospital, Boston, MA. "Harvard-Hopkins tradition in neurosurgery and craniofacial surgery". September 20, 2015.
427. 1st Annual HARVARD-JOHNS HOPKINS Multidisciplinary Symposium, Shriners Hospital, Boston, MA. "Syndrome of the trephined". September 20, 2015.
428. Visiting Professor, 20th Annual Milam E. Leavens Distinguished Lectureship, University of Texas MD Anderson Cancer Center, Houston, TX. "Developing New Approaches to Brain Tumor Therapy." January 15, 2016.
429. Keynote Speaker, Children With Cancer UK Research Workshop on drug delivery in paediatric brain tumors. Royal College of Physicians, London. "Developing Drug Delivery Systems for Brain Tumors" February 1st, 2016.
430. Children With Cancer UK Research Workshop on drug delivery in paediatric brain tumors. Royal College of Physicians, London. Session 7, "Recent developments: Interstitial delivery for brain tumors". February 2nd, 2016.
431. Responsible Conduct of Research Series, George Washington University, Washington, DC. "Challenges for

- Translational Research". February 24, 2016.
432. Training in Neurotherapeutics Discovery and Development for Academic Scientists. National Institutes of Health, Bethesda, MD. "Personal Reflections on the Development of Gliadel for Brain Cancer". March 16, 2016.
433. Johns Hopkins Hospital, Baltimore, MD. Webinar on Meningiomas "Helping Patients with Brain Tumors". April 16, 2016.
434. Johns Hopkins Hospital, Baltimore, MD. Johns Hopkins Medical Student Lecture "Helping Patients with Brain Tumors". May 23, 2016.
435. Visiting Professor, Grand Rounds at Department of Neurosurgery at Northwestern University Feinberg School of Medicine, Chicago IL. "Developing New Approaches to Brain Tumor Therapy". July 1, 2016.
436. American Clinical and Climatological Association. Developing Therapies for Brain Tumors: The Hunterian Laboratory. October 21, 2016.
437. Research Update in Neuroscience for Neurosurgeons (RUNN), Woods Hole, MA. "Brain Tumor Therapy". October 31, 2016.
438. Johns Hopkins Hospital, Baltimore, MD. Medical Student Lecture "Diseases and Disorders of the Nervous System". November 8, 2016.
439. Invited Speaker, Royal College of Surgeons Conference, Glasgow Scotland. "Challenges to Developing New Brain Tumor Therapies". November 19, 2016.
440. Royal College of Surgeons Conference Workshop, Glasgow Scotland. "Surgical Considerations for Brain Tumor Treatment". November 19, 2016.
441. Langer Laboratory Seminar Series, Massachusetts Institute of Technology, Cambridge, MA. "Targeted Brain Tumor Therapy". December 6, 2016.
442. Visiting Professor, Dinner Lecture at Department of Neurosurgery at Cedars-Sinai Medical Center, Los Angeles, CA. "Challenges to Developing New Therapies for Brain Tumors." March 23, 2017.
443. Visiting Professor, Grand Rounds at Department of Neurosurgery at Cedars-Sinai Medical Center, Los Angeles, CA. "Recent Developments in Brain Tumor Therapy". March 24, 2017.
444. Session speaker, AAMC National Professional Development Conference for Institutional Advancement. "A Tale of Two Unlikely Donors: How Priorities, Politics, and Perseverance Led to Two Mega-Gifts". March 31, 2017.
445. Lecture, Society for Neurological Surgeons Annual Meeting. Houston, Texas. "Enhancing Philanthropy: Neurosurgery Fund Raising". May 21, 2017.
446. Johns Hopkins Hospital, Baltimore, MD. Johns Hopkins Medical Student Lecture "Helping Patients with Brain Tumors". May 23, 2017.
447. Invited Speaker, Al Owens Jr. Symposium. Johns Hopkins Hospital. Baltimore, MD. "Dr. Albert Owens' Influence on the Growth of Neurosurgical Oncology at Johns Hopkins". June 8, 2017.
448. Lecture, Grateful Patient Fundraising and Philanthropy Summit. Baltimore, MD. June 28, 2017.
449. Plenary Lecture, Controlled Release Society's 44th Annual Meeting and Exposition. Boston, MA. "The Changing Role of Drug Delivery in Brain Tumor Delivery". July 16, 2017.
450. Lecture, National Science Foundation IUCRC meeting. Arlington, VA. TED Talk: "Innovation and Entrepreneurship: New Brain Tumor Treatments". July 27, 2017.
451. Lecture, Neurosurgery Interest Group. Johns Hopkins University. Baltimore, MD. "Johns Hopkins Neurosurgery". August 22, 2017.
452. Plenary Lecture, 14th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii. "New Understanding of Brain Tumor Therapies". December 18, 2017.
453. Invited Speaker, Johns Hopkins Medicine, Baltimore, MD. A Fond Farewell: Johns Hopkins Medicine Celebrates the Legacy of Ronald R. Peterson. January 16, 2018.
454. Lecture, Grand Rounds, Distinguished Faculty Visitor Program, Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia. "Developing New Therapies for Neurosurgery at Johns Hopkins". January 23, 2018.
455. Lecture, Community Outreach, Distinguished Faculty Visitor Program, Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia. "Advances in Neurosurgery at Johns Hopkins". January 23, 2018.
456. Lecture, UCLA Neurosurgery Update CME, Los Angeles, California. "Recent Developments in Brain Tumor Therapy". April 13, 2018.
457. Guest Lecture, UCLA Neurosurgery Update CME, Los Angeles, California. "Challenges to Developing New Therapies for Brain Tumors". April 13, 2018.
458. Lecture, Rabin Medical Center, Israel. "Developing New Therapies for Brain Tumors". May 22, 2018.

459. Johns Hopkins Hospital, Baltimore, MD. Johns Hopkins Medical Student Lecture "Helping Patients with Brain Tumors". June 6, 2018.
460. Moderator; 6th International Symposium on Focused Ultrasound, Brain Tumors Part I session. October 23, 2018.
461. Research Update in Neuroscience for Neurosurgeons (RUNN), Woods Hole, MA. "Brain Tumor Therapy". October 29, 2018.
462. Lecture, Istituto di Neurochirurgia, Rome, Italy. "New Developments in the Treatment of Brain Tumors". November 6, 2018.
463. Lecture, Istituto di Neurochirurgia, Rome, Italy. "The Formation of Clinician-Scientists: The Hopkins Hunterian Laboratory Experience". November 8, 2018.
464. Johns Hopkins University, Baltimore, MD. Medical Student Lecture "Diseases and Disorders of the Nervous System". November 1, 2018.
465. Barrow Neurological Institute, Phoenix, AZ. Sally Harrington Goldwater Grand Rounds Visiting Professor. "Developing New Approaches to Brain Tumor Treatment". January 25, 2019.
466. University of Maryland School of Medicine, Baltimore, MD. 22nd annual Henderson Lecture. "Developing New Therapies for Brain Tumors". March 27, 2019.
467. Visiting Professor, Neurosurgery Grand Rounds, Stanford, CA. "Developing Brain Tumor Therapies." April 12, 2019.
468. NSS Case Conference Leaders of Brain Science Lunches. Johns Hopkins University School of Medicine, Baltimore MD. May 29, 2019.
469. NSS Neurosurgery Case Conference. Johns Hopkins University School of Medicine, Baltimore MD. June 5, 2019.
470. Society for Image Guided Neurointerventions (SIGN) Symposium. "Novel Approaches to Therapeutic Brain Delivery". Mount Washington Conference Center, Baltimore, MD. June 11, 2019.
471. 68th SINh National Congress, Rome, Italy. Low Grade Gliomas; Meet The Expert: Case Discussion. "Advancement in the Understanding and Treatment of Gliomas". September 18, 2019.
472. Neurosurgery Grand Rounds. "Recent Developments in Brain Tumor Therapy". Henry Ford Neuroscience Institute, Detroit, Michigan. September 25, 2019.
473. Rosenblum Lectureship in Neurosurgery. "Challenges to Developing New Therapies for Brain Tumors". Henry Ford Neuroscience Institute, Detroit, Michigan. September 25, 2019.
474. Johns Hopkins University, Baltimore, MD. History of Medicine Lecture. "Treating Brain Tumors: Challenges and Opportunities". October 16, 2019.
475. Research Update in Neuroscience for Neurosurgeons (RUNN), Woods Hole, MA. "Brain Tumor Therapy". October 27, 2019.
476. Johns Hopkins University, Baltimore, MD. Lecture to School of Medicine Neurosurgery Student Interest Group. "Johns Hopkins Neurosurgery". November 12, 2019.
477. Plenary Lecture, 15th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii. "Brain Tumor Therapy". December, 2019.
478. Sonnentag Distinguished Lecture, Neuroscience-Neurosurgery Lecture Series, Mayo Clinic, Jacksonville, Florida. "Developing Brain Tumor Therapies". February 24, 2020.
479. Johns Hopkins University, Baltimore, MD. Lecture to School of Medicine Neurosurgery Student Interest Group "Johns Hopkins Neurosurgery". October 20, 2020
481. Johns Hopkins University, Baltimore, MD. Neurosurgery Grand Round. "Developing Brain Tumor Therapies" November 12, 2020
482. 2022 Insightec's APEX Neuro-Oncology Medical Advisory Board April 18, 2022
483. Society for Biomaterials, Baltimore, MD. "Tips and tricks for translating academic technologies into commercial products." April 28, 2022
484. Society of Neurological Surgeons Meeting, Detroit, MI, "Building Partnerships" May 23, 2022
485. Alksne Lectureship, San Diego, CA, June 23, 2022
486. Plenary speaker AACNS 2022 Jerusalem, "The future of the neurosurgeon scientist", September 2022
487. Subcortical Surgery Group Annual Meeting, "Tissue in the Issue in the Molecular Era: How the Neurosurgeon Uniquely Meets the Unmet Need", Boulder, CO July 2022

OTHER PROFESSIONAL ACCOMPLISHMENTS

Abstracts

- a1. Brem S, Finkelstein D, Chen C, Brem H, Folkman J, and Patz A. "Retinal neovascularization: Experimental induction by intravitreal tumor." Investigative Ophthalmology, Supp., 14:21, 1975.
- a2. Brem H and Folkman J. "Inhibition of tumor angiogenesis." In Year Book of Surgery, J.S. Najarian, ed., Year Book Medical Publishers, Chicago, 1977.
- a3. Brem S, Preis I, Langer R, Brem H, Folkman J, and Patz A. "Vitreous inhibition of tumor angiogenesis." Investigative Ophthalmology, Supp., 16:54, 1977.
- a4. Prendergast R, Lutty G, Thompson D, Liu S, Patz A, and Brem H. "Corneal inflammation and neovascularization induced by a purified protein with lymphokine activity. Investigative Ophthalmology, Supp., 19, 1980.
- a5. Leong KW, Simonte V, Hilton J, Colvin OM, Brundrett B, Brem H, and Langer R. "Bioerodible polyanhydrides for cancer chemotherapy." Proceedings of the Controlled Release Society, 12:106-107, 1985.
- a6. Won SK, Bronner AJ, Brem H, Carson BS, and Rosenbaum AE. "Improving ultrasound intraoperative localization and operation of large, variegated lesions: The stringed metallic clip." Annual meeting of the American Society of Neuroradiology, San Diego, CA., January 23, 1986.
- a7. LaFrance ND, Links J, Williams J, Holcomb H, Dannals R, Ravert, H, Wilson A, Drew H, Herda S, Wong D, Brem H, Long D, and Wagner H, Jr. "C11-methionine and F18-deoxyglucose (FDG) in the postoperative management of patients with brain tumors with positron emission tomography." Journal of Nuclear Med., 27:890, 1986.
- a8. Zinreich JS, Wang H, Epstein JI, Brem H, Anderson JH, Rosenbaum AE. "Carotid bifurcation imaging model for more accurately comparing imaging techniques." XIII Symposium Neuroradiologicum, Stockholm, Sweden, June 23-28, 1986.
- a9. Steen RG, Tamargo RJ, Rajan S, McGovern R, Brem H, Wehrle JP, and Glickson JD. "In vivo ³¹P NMR detects the response of 9L gliosarcoma to chemotherapy with BCNU." Symp American College of Radiology, Banff, Canada, April 21, 1987.
- a10. Tamargo RJ, Epstein JI, and Brem H. "Heterotransplantation of Mouse and rabbit tumors to the quadrigeminal cistern of neonatal rats." American Association of Neurological Surgeons, Dallas, Texas, May 3, 1987, p. 255.
- a11. Tamargo RJ, Leong K, and Brem H. "Inhibition of growth of the 9L glioma by the local sustained release of angiogenesis inhibitors." Joint Tumor Section Session of the American Assoc of Neurological Surgeons, Dallas, TX, May 3, 1987, p. 132.
- a12. LaFrance ND, O'Tuama L, Villemagne V, Williams J, Douglass K, Dannals RF, Ravert H, Wilson A, Drew H, Links J, Wong D, Carson B, Brem H, Strauss L, and Wagner HN, Jr. "Quantitative imaging and follow-up experience of C-11-L-methionine accumulation in brain tumors with positron emission tomography." Journal of Nuclear Medicine 28(4):645,1987.
- a13. Brem H, Fossett D, Myseros JS, Leong KW, Tamargo RJ, Colvin M, and Hilton J. "Sustained local release of a biologically active chemotherapeutic agent by a new bioerodible polymer." Annual Meeting of the Congress of Neurological Surgeons, Baltimore, Maryland, October 24, 1987.
- a14. Tamargo RJ, Steen RG, Rajan SS, McGovern K, Wehrle JP, Glickson JD, and Brem H. "In vivo ³¹P NMR spectroscopy of the 9L gliosarcoma following treatment with BCNU." Annual Meeting of the Congress of Meurological Surgeons, Baltimore, Maryland, October 24, 1987.
- a15. Tamargo RJ, Myseros JS, and Brem H. "Growth inhibition of the 9L gliosarcoma by the local sustained release of BCNU: A comparison of systemic versus regional chemotherapy." American Association of Neurological Surgeons, Toronto, Canada, pp 212-214, April 24, 1988.
- a16. Tamargo RJ, Epstein JI, Reinhard CS, Chasin M, and Brem H. "Brain biocompatibility of a biodegradable polymer capable of sustained release of macromolecules." American Association of Neurological Surgeons, Toronto, Canada, April 24, 1988, p. 399.
- a17. Tamargo RJ, Epstein JI, and Brem H. "Heterotransplantation of malignant gliomas to the quadrigeminal cistern and subcutaneous space of neonatal rats." American Association of Neurological Surgeons, Toronto, Canada, April 24, 1988, p. 409.

- a18. Brem H, Tamargo RJ, Pinn M, and Chasin M. "Biocompatibility of a BCNU-loaded biodegradable polymer: A toxicity study in primates." American Association of Neurological Surgeons, Toronto, Canada, April 24, 1988, p. 381.
- a19. Brem H, Carson BS, LaFrance ND, O'Tuama L, and Wagner HN. "Positron emission tomography: Quantitative imaging and experience with C-11-L-methionine accumulation in brain tumor patients." American Association of Neurological Surgeons, Toronto, Canada, April 24, 1988, p. 350.
- a20. Brem H, Ahn H, Tamargo RJ, Pinn ML, and Chasin M. "A biodegradable polymer for intracranial drug delivery: A radiological study in primates." American Association of Neurological Surgeons, Toronto, Canada, April 24, 1988, p. 349.
- a21. Yang M, Tamargo R, Leong K, and Brem H. "Sustained systemic delivery of BCNU from an intraperitoneal polymer implant." American Association of Neurological Surgeons, Toronto, Ontario, Canada, April 1988, p. 414.
- a22. Steen G, Tamargo R, McGovern K, Glickson J, and Brem H. "In vivo ^{31}P NMR spectroscopy of the 9L gliosarcoma: Dose-dependent changes in tumor bioenergetics following chemotherapy with BCNU." American Association of Neurological Surgeons, Toronto, Ontario, Canada, April 1988, p. 409.
- a23. Malat J, Brem H, Kumar A, Wang H, and Carson B. "Intraoperative ultrasound of brain tumors, CT and MRI correlation." American Association of Neurological Surgeons, Toronto, Ontario, Canada, April 1988.
- a24. Grossman SA, Reinhard CS, Brem H, Brundrett R, Chasin M, Tamargo R, and Colvin OM. "The intracerebral delivery of BCNU with surgically implanted bioerodable polymers: A quantitative autoradiographic study." Proceedings of the American Society of Clinical Oncology, 7:84, 1988.
- a25. Griffin CA, Long PP, Brem H, Carson BS, Tamargo RJ, and Grossman SA. "Chromosome abnormalities in central nervous system tumors." Proceedings of American Association Cancer Research, 29:28, 1988.
- a26. O'Tuama L, Douglass K, Phillips P, Strauss L, Links J, Dannals R, Ravert H, Wilson A, Carson B, Brem H, Wong D, LaFrance N, and Wagner H, Jr. "Maturation of cerebral neutral aminoacid accumulation from childhood to the adult: A C-11-L-methionine PET study." Society of Nuclear Medicine 35th Annual Meeting, San Francisco, CA, Journal of Nuclear Medicine, 29(5):784, 1988.
- a27. Yang MB, Tamargo TJ, and Brem H. "Intracranial versus systemic delivery of BCNU using an implantable controlled release polymer." Annual Meeting of the Congress of Neurological Surgeons, Seattle, Washington, Sept. 24, 1988.
- a28. Griffin CA, Long PP, Brem H, Carson BS, and Grossman SA. "Cytogenetics of central nervous system tumors: Specific abnormalities and comparison of culture methods." 3rd International Workshop on Chromosomes in Solid Tumors, Feb. 26-28, 1989.
- a29. Tamargo RJ, Sills AK, Reinhard C, and Brem H. "Controlled release of dexamethasone from a polymer implant in the brain." American Association of Neurological Surgeons, Washington, D.C., April 3, 1989, p. 383.
- a30. Tamargo RJ, Epstein JI, Yang MB, Pinn ML, Chasin M, and Brem H. "Interstitial vs systemic chemotherapy of the intracranial 9L gliosarcoma: Controlled-release polymers for local therapy." Proceedings of AANS, Vol.30:88, 1989.
- a31. Olivi A, Duncan KLK, Corden BJ, Lenartz D, Pinn ML, Frye RM, and Brem H. "Comparison of the CNS toxicity of cisplatin, iproplatin and carboplatin given by intrathecal administration in a rat model." Proceedings of the American Association for Cancer Research, 30:466, 1989.
- a32. Brem H. "Delivery of drugs to the brain by a controlled-release polymer system." Proceed. Internat'l. Symp. Control. Rel. Bioact. Mater., 16:7-8, 1989.
- a33. Olivi A, Pinn ML, Ewend MG, Chan DW, and Brem H. "Use of polymers to locally release carboplatin and inhibit the growth of Walker 256 carcinosarcoma." Ped. Section of Amer Assoc of Neurol Surgeons, Washington, DC, Nov 28 - Dec 1, 1989.
- a34. Nabors MW, Griffin CA, Zehnbauer BA, Kaufman SH, Grossman SA, Zhao XL, Brem H, Long DM, Chu YW, Phillips PC, and Colvin OM. "MDR1 expression in human brain tumors. Proceedings of the Amer Association for Cancer Research, 31:355, 1990.
- a35. Griffin CA, Long PP, Carson BS, Brem H, and Grossman SA. "Cytogenetics of central nervous system tumors: Comparison of culture methods and specific abnormalities." Proceedings of the Amer Association for Cancer Research, 31:25, 1990.
- a36. Phillips PC, Black AD, Carson BC, Brem H, Morelos J, and Colvin OM. "Glutathione-s-transferase (GST) activity and glutathione (GSH) concentration in human brain tumor biopsies." Proceedings of the Amer Assoc for Cancer Research, 31:355, 1990.

- a37. Brem H. "Controlled-release polymer systems for drug delivery to the brain." American Chemical Society, 199:117, 1990.
- a38. Olivi A, Lenartz D, Domb A, Dureza C, Pinn ML, and Brem H. "Treatment of F98 rat glioma with local controlled-release of carboplatin from a biodegradable polymer." International Symposium on Advances in Neuro-Oncology, Sanremo, Italy, September 1990.
- a39. Brem R and Brem H. "Biodegradable polymer for intracranial drug delivery: A radiologic study in monkeys and humans." Advances in Neuro-Oncology, Sanremo, Italy, September 1990.
- a40. Brem H, Mahaley MST, Vick NA, Black K, Schold SC, Burger PC, Friedman AH, Circic IS, Eller TW, Cozzens JW, and Kenealy JN. "Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas." Advances in Neuro-Oncology, Sanremo, Italy, September 1990.
- a41. Reinhard CS, Radomsky ML, Saltzman WM, Hilton J, and Brem H. "Polymeric controlled release of dexamethasone in normal rat brain." Advances in Neuro-Oncology, Sanremo, Italy, September 1990.
- a42. Brem H, Mahaley MST, Vick NA, Black K, Schold SC, Burger PC, Friedman AH, Circic IS, Eller TW, Cozzens JW, and Kenealy JN. "Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas." Congress of Neurological Surgeons, Los Angeles, CA, 1990.
- a43. Guerin C, Laterra J, Hruban R, Brem H, Drewes L, and Goldstein G. "The glucose transporter and blood-brain barrier of human brain tumors." Congress of Neurological Surgeons, Los Angeles, CA, 1990.
- a44. Long PP, Carson BS, Brem H, Grossman S, and Griffin CA. "Chromosome abnormalities in low grade central nervous system (CNS) tumors." 4th International Workshop on Chromosomes in Solid Tumors, Tucson, Arizona, Cancer Genetics and Cytogenetics, February, 1991.
- a45. Griffin CA, Long PP, Brem H, Carson BS, and Grossman SA. "Chromosome analysis of 50 high grade astrocytomas." 4th International Workshop on Chromosomes in Solid Tumors, Tucson, Arizona, Cancer Genetics and Cytogenetics, February, 1991.
- a46. Brem H, Mahaley S, Vick NS, Black K, Schold SC, Burger PC, Friedman AF, Circic IS, Eller TW, and Cozzens JW. "Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas." American Association of Neurological Surgeons, New Orleans, LA, April, 1991, p. 527.
- a47. Tamargo RJ, Olivi, A, Bok, RJ, and Brem H. "Angiogenesis inhibition by Minocycline." American Association of Neurological Surgeons, New Orleans, LA, April, 1991, p. 525.
- a48. Olivi A, Domb A, Lenartz D, Dureza C, Goodman JH, Pinn M, and Brem H. "Treatment of F-98rat glioma with local controlled-release of carboplatin from a biodegradable polymer." American Association of Neurological Surgeons, New Orleans, LA, April, 1991, p. 526.
- a49. Guerin C, Laterra J, Goldstein GW, and Brem H. "Blood-brain barrier properties of malignant glioma blood vessels: Expression of glucose transporter despite high vascular permeability." American Association of Neurological Surgeons, New Orleans, LA, April, 1991, p. 510.
- a50. Judy KD, Long DM, and Brem H. "Evaluation of inhibition of Xanthine Oxidase by Allopurinol to reduce oxygen free radical production in cryogenic induced brain edema." American Association of Neurological Surgeons, New Orleans, LA, April 1991, p. 450.
- a51. Nabors MW, Griffin CA, Zehnbauer BA, Hruban RH, Phillips PC, Grossman SA, Brem H, and Colvin OM. "MDR1 gene expression in human brain tumors." American Association of Neurological Surgeons, New Orleans, LA, April, 1991, p. 521.
- a52. Dureza C, Olivi A, Domb A, Epstein JI, Lenartz D, Pinn ML, and Brem H. "Brain compatibility of a new biodegradable polymer capable of sustained release of water-soluble agents." American Association of Neurological Surgeons, New Orleans, LA, April 1991, p. 525.
- a53. Brem H. "Interstitial chemotherapy utilizing polymers for treating brain tumors." Proceedings of the American Association for Cancer Research, 32:488-489, 1991.
- a54. Judy KD, Olivi A, Domb A, Colvin OM, Brem H. "Controlled release of a cyclophosphamide derivative with polymers is effective against rat gliomas." Congress of Neurological Surgeons, Orlando, Florida, Oct. 1991.
- a55. Guerin C, Wolff J, Laterra J, Goldstein GW, Brem H. "Glucose transporter expression by 9L glioma vessels is increased by dexamethasone." Congress of Neurological Surgeons, Orlando, FL Oct. 1991.
- a56. Domb A, Olivi A, Judy K, Brem H. "Anticancer implant for the treatment of brain tumors." ICRF Scientific Conference on Advanced Concepts in Cancer Research, Maleh Hachamishan, Israel, p. 103, 1991
- a57. Guerin, C, Laterra J, Masnyk T, Golub LM, Brem H. "Mechanisms of antiangiogenesis: relationship of anticollagenase activity and endothelial cell growth." AANS, San Francisco, CA., April 1992.
- a58. Weingart J, Olivi A, Brem H. "Tumor growth inhibition by minocycline." American Association of Neurological Surgeons, San Francisco, CA, April, 1992.

- a59. Brem H, Olivi A, Greenhoot JH, Sisti, M. "Interstitial chemotherapy with BCNU-loaded polymers for the treatment of newly diagnosed malignant astrocytomas: A clinical study." American Association of Neurological Surgeons, San Francisco, CA, April, 1992.
- a60. Sills AK, Davis JD, Brem H. "Prolongation of survival by interstitial dexamethasone in a rat glioma model." American Association of Neurological Surgeons, San Francisco, CA, April, 1992.
- a61. Olivi A, Park HC, Epstein JI, Domb AJ, Brem H. "Biocompatible polymers as means to reduce the postoperative epidural scar in a rat model." American Association of Neurological Surgeons, San Francisco, CA, April, 1992.
- a62. Weingart J, Tamargo R, Brem H. "Minocycline, an anti-angiogenesis inhibitor, inhibits brain tumor growth." American Association for Cancer Research, San Diego, CA, 33:75, 1992.
- a63. Weingart J, Brem H, Long DM, Zinreich J. "Application of a computer-associated localizing probe using 3-D CT/MRI images in neurosurgery." Congress of Neurological Surgeons, Washington, D.C., October 31 - November 5, 1992.
- a64. Buahin KG, Colvin OM, Brem H. "Interstitial chemotherapy of a brain tumor model: comparison of intratumoral injection versus polymeric controlled release." Congress of Neurological Surgeons, Washington, D.C., October 31 - November 5, 1992.
- a65. Buahin KG, Ludeman SM, Colvin OM, Brem H. "Efficacy of deuterated 4-hydroperoxycyclophosphamide against a rat glioma model." Congress of Neurological Surgeons, Washington, D.C., October 31 - November 5, 1992.
- a66. Weingart J, Brem H. "Minocycline, an angiogenesis inhibitor, acts synergistically with carmustine (BCNU) to control 9L gliosarcoma growth. The American Society for Cell Biology, , Denver, Colorado, November 15-19, 1992.
- a67. Rothman GB, Holliday MJ, Brem H, Mattox DE, Long DM. "Posterior fossa meningiomas: A retrospective review." North American Skull Base Society, Scottsdale, Arizona, 1993, Vol 3, p. 11.
- a68. Mattox DE, Long DM, Brem H, Bryant N, Trebo S, Zinreich SJ. "Imaging-based computer-assisted surgery for skull base and intracranial surgery: Experience of 81 cases." North American Skull Base Society, Scottsdale, Arizona, 1993, Vol 3, p. 13.
- a69. Brem H, Cahan MA, Caterall M, Tyler B, Pinn M, Weingart J, Domb A, Ringel I, Hilton J, Colvin M. "Inhibition of brain tumor growth by taxol." American Association of Neurological Surgeons, Boston, Massachusetts, p. 479, 1993.
- a70. Buahin KG, Hilton J, Brem H. "Effect of interstitial chemotherapy with polymeric delivery of a cyclophosphamide congener on glucose metabolism in the brain." American Association of Neurological Surgeons, Boston, Massachusetts, p. 524, 1993.
- a71. Weingart J, Brem H. "Interstitial delivery of minocycline, an angiogenesis inhibitor, acts synergistically with carmustine (BCNU) to prolong survival in a 9L gliosarcoma intracranial model." American Association of Neurological Surgeons, Boston, Massachusetts, p. 498, 1993.
- a72. Weingart J, Brem H. "Minocycline, an angiogenesis inhibitor, when delivered interstitially acts synergistically with carmustine (BCNU) to prolong survival in an intracranial 9L gliosarcoma model." American Association for Cancer Research, Orlando, FL, May 19-23, 1993.
- a73. Walter KA, Cahan M, Brem H. "Taxol's effectiveness against malignant brain tumor cell lines in vitro." American Association for Cancer Research, Orlando, FL, May 19-23, 1993.
- a74. Arosarena O, Laterra J, Brem H. "Microvascular differentiation in experimental glial tumors." American Association for Cancer Research, Orlando, FL, May 19-23, 1993.
- a75. Yue NC, Wong D, Yung B, Conti P, Grossman SA, Barker P, Paik C, Hruban R, Nauta H, Brem H, Bryan RN. "Brain tumors: Structural, functional, and pathological cross-correlates." American Society of NeuroRadiology, Vancouver, British Columbia, May 20, 1993.
- a76. Buahin KG, Colvin OM, Brem H. "Interstitial chemotherapy in a brain tumor model: Comparison of intratumoral injection versus polymeric controlled release." Third Drug Discovery and Development Symposium, San Diego, California, July 22-24, 1993.
- a77. Weingart J, Tyler B, Colvin OM, Brem H. "Local delivery of camptothecin as a new treatment for malignant brain tumors." Third Drug Discovery and Development Symposium, San Diego, California, July 22-24, 1993.
- a78. Weingart J, Brem H. "Interstitial delivery of minocycline, an angiogenesis inhibitor, acts synergistically with carmustine (BCNU) to prolong survival in a 9L gliosarcoma intracranial model." Third Drug Discovery and Development Symposium, San Diego, California, July 22-24, 1993.

- a79. Walter KA, Cahan MA, Domb A, Hilton J, Colvin OM, Brem H. "Taxol delivery by controlled release polymer to treat malignant brain tumors in a rat model." Third Drug Discovery and Development Symposium, San Diego, California, July 22-24, 1993.
- a80. Blevins LS, Yung BCK, Wong DF, Brem H, Wand G. "In vivo assessment of D2 dopamine receptor density in pituitary adenoma using positron emission tomography." The Endocrine Society, Las Vegas, Nevada, 1993.
- a81. Sipos EP, Tamargo RJ, Guerin C, Brem H. "Inhibition of tumor angiogenesis by tetracycline." Proceedings of the New York Academy of Science, Tampa, Florida, Jan 19-22, 1994.
- a82. Wiranowska M, Ransohoff J, Naldu K, Weingart J, Brem H. "Interferon-containing biocompatible polymers for localized cerebral immunotherapy of glioma." Proceedings of the American Association for Cancer Research, San Francisco, Vol 35:491, 1994.
- a83. White BJ, Brem H, Tamargo RJ. "Permeability of the blood-brain barrier in the postoperative brain." American Association of Neurological Surgeons, San Diego, California, April 9-14, 1994.
- a84. Utsuki T, Olivi A, Pitha J, Loftsson T, Kristmundsdottir T, Brem H. "Efficacy of carboplatin-hydroxypropyl- \square -cyclodextrin complexes against a rat glioma model when locally released from ethycellulose microcapsules." American Association of Neurological Surgeons, San Diego, California, April 9-14, 1994.
- a85. Walter KA, Cahan MA, Domb A, Hilton JH, Colvin OM, Brem H. "Interstitial taxol for malignant glioma: Efficacy and pharmacokinetics in a rat model." American Association of Neurological Surgeons, San Diego, California, April 9-14, 1994.
- a86. Loftsson T, Pitha J, Kristmundsdottir T, Utsuki T, Olivi A, Brem H. "Microencapsulation of a carboplatin-HP \square CD complex." International Cyclodextrin Symposium, Tokyo, Japan, April 1994.
- a87. Brem H, Piantadosi S, Burger PC, and the Polymer Brain Tumor Treatment Group. "Intraoperative chemotherapy using biodegradable polymers: Safety and effectiveness for recurrent glioma evaluated by a prospective, multi-institutional placebo-controlled clinical trial. The Proceedings of the American Society of Clinical Oncology, Dallas, TX, Vol. 13, p. 174, 1994.
- a88. Jedlicka AE, DiSilvestre D, Holroyd KJ, Brem H, Burger PC, Levitt RC. "Application of fluorescence-based semi-automated allelotyping to the molecular characterization of tumors. Americal Society of Human Genetics, Montreal, Canada, October 18-22, 1994.
- a89. Brem H. "Drug delivery: Barriers to drug transport and the design of novel therapeutic agents." Journal of Cellular Biochemistry, Supplement 19A, p. 170, 1995.
- a90. Sampath P, Holliday MJ, Brem H, Long DM. "Immediate and delayed facial paralysis in acoustic tumor surgery. Etiologies and prevention." VI Annual North American Skull Base Society, Naples, Florida, Feb 18-21, 1995.
- a91. Sipos EP, Witham TF, Ratan R, Baraban J, Brem H. "Buthionine sulfoximine potentiates the antitumor effect of 4-hydroperoxy-cyclophosphamide when delivered locally in the intracranial 9L-glioma mode. American Association for Cancer Research, Toronto, Ontario, Canada, March 18-22, 1995.
- a92. Choti MA, Saenz J, Yang X, Brem H. "Intrahepatic FudR delivered from biodegradable polymer in experimental liver metastases from colorectal carcinoma." American Association for Cancer Research, Toronto, Ontario, Canada, March 18-22, 1995.
- a93. Thompson RC, Pardoll DM, Jaffee EM, Tyler BM, Brem H. "Development of a new intracranial tumor model using the murine B16-F10 melanoma." American Association of Neurological Surgeons, Orlando, Florida, April 22-27, 1995.
- a94. Brem H, Ewend MG, Greenhoot J, Sisti M. "The safety of interstitial chemotherapy with BCNU-loaded polymer in the treatment of newly diagnosed malignant gliomas: a multi-institutional study with three year follow-up. American Association of Neurological Surgeons, Orlando, Florida, April 22-27, 1995.
- a95. Gibbons MC, Rosenberg JM, Jedlicka AE, Brem H, Burger PC, Levitt RC. "Clinical applications of molecular genetic methods (microsatellite instability) for the pathologic subclassification of gliomas. Association of University Anesthesiologists, San Diego, CA, May 1995.
- a96. Rosenberg JM, Gibbons MC, Jedlicka AE, Holroyd KJ, Burger PC, Brem H, Levitt RC. "Evidence for FAS antigen as a tumor suppressor gene in gliomas." Association of University Anesthesiologists, San Diego, CA., May 1995.
- a97. Gibbons MC, Rosenberg J, Jedlicka AE, Brem H, Levitt RC, Burger PC. "Microsatellite instability in gliomas." American Assoc of Neuropathologists, San Antonio, TX, June 6-11, 1995.
- a98. Williams JA, Dillehay L, Sipos EP, Tabassi K, Civelek AC, Brem H. "Controlled release of radiochemicals from implantable biodegradable polymer devices." Society of Nuclear Medicine, Minneapolis, Minnesota,

- June 12-15, 1995.
- a99. Fung LK, Shin M, Strasser J, Caviston T, Sipos EP, Tyler B, Brem H, Saltzman WM. "Transport of 1,3-Bis(1,2-chloroethyl)-1-nitrosourea (BCNU) in the brain following controlled release by a polymer." Controlled Release Society, Seattle, WA, July 30-Aug 2, 1995.
- a100. Williams J, Dillehay LE, Sipos E, Fahlman C, Tabassi K, Williams J, Wharam M, Brem H. "Implantable biodegradable polymers for radiosensitization of human glioma *in vivo*." The American Society for Therapeutic Radiology and Oncology (ASTRO). Miami, Florida, Oct 8-11, 1995.
- a101. Gibbons MC, Sipos EP, Tyler B, Pinn M, Brem H. "The anti-angiogenic agent amiloride inhibits tumor growth and prolongs survival in the rat 9L-glioma model." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a102. Gibbons MC, Burger PC, Rosenberg J, Levitt RC, Brem H. "Evidence of mismatch repair in the pathogenesis of GMB." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a103. Sills AK, Tyler BM, Brem H. "Intracranial delivery of dexamethasone from a biodegradable polymer." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a104. Sipos EP, Tebo SA, Zinreich SJ, Long DM, Brem H. "Intraoperative navigation: In vivo accuracy testing and clinical experience." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a105. Storm PB, Thompson RC, Veliuona MA, Tyler B, Brem H. "Intracranial biodistribution of tritiated camptothecin." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a106. Storm P, Tyler B, Brem H. "Combination chemotherapy with camptothecin and BCNU: Evidence for in-vitro and in-vivo synergy." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a107. Thompson RC, Ewend MG, Jaffee EM, Pardoll DM, Brem H. "Cytokine enhanced antitumor immunotherapy for brain tumors." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a108. Ewend MG, Thompson RC, Jaffe E, Pardoll D, Brem H. "Development of immunologic memory against intracranial metastatic melanoma after exposure to interleukin-2-transfected melanoma cells." Congress of Neurological Surgeons, San Francisco, CA, October 14-19, 1995.
- a109. Brem H. "Controlled delivery of chemotherapy by biodegradable polymers for the treatment of malignant gliomas." Eleventh International Conference on Brain Tumor Research and Therapy, Napa, CA, November 1, 1995.
- a110. Ewend MG, Thompson RC, Pardoll DM, Jaffee EM, Tyler BM, Brem H. "IL-2 and GM-CSF are synergistic in treating intracranial tumors." Eleventh International Conference on Brain Tumor Research and Therapy, Napa, CA, Oct. 31 - Nov, 3, 1995.
- a111. Storm PB, Brem H. "Intracranial delivery of camptothecin from a biodegradable polymer." Eleventh International Conference on Brain Tumor Research and Therapy, Napa, CA, Oct. 31 - Nov, 3, 1995.
- a112. Fung LK, Ewend M, Sills A, Sipos E, Thompson R, Brem H, Saltzman WM. "Polymer delivery of carmustine, 4-hydroperoxy-cyclophosphamide and taxol in the monkey brain." Proceedings of the American Association for Cancer Research, Vol 37:376, 1996.
- a113. Ewend MG, Anderson R, Tyler BM, Brem H. "Local intracranial delivery of BCNU from biodegradable polymers is effective and safe for the treatment of metastatic intracranial tumors." The American Association of Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a114. Ewend MG, Thompson RC, Anderson R, Pardoll DM, Brem H. "IL-2 and GM-CSF act synergistically in the treatment of intracranial tumors." The American Association of Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a115. Storm PB, Choi S, Brem H. "Treatment implications of topoisomerase I levels in human and rat gliomas." The American Association of Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a116. Anderson R, Ewend MG, Thompson RC, Tyler BM, Brem H. "Intracranial IL-2 generates long-term immunologic memory against subsequent systemic tumor challenges." The American Association of Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a117. Lesniak MS, Ewend MG, Pardoll DM, Brem H. "Local delivery of interleukin-4 (IL-4) prolongs the survival of mice with CNS tumors." The American Association of Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a118. Epstein D, Sills A, Brem H, Collins D, Williams J, Zasloff M. "Selective inhibition of VEGF-stimulated endothelial cells by squalamine." The American Association of Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a119. Sills AK, Epstein DS, Sipos ER, Williams J, Zasloff M, Brem H. "Inhibition of tumor-induced neovascularization by squalamine, a novel angiogenesis inhibitor." The American Association of

- Neurological Surgeons, Minneapolis, MN, April 27-May 2, 1996.
- a120 Williams J, Dillehay L, Tabassi K, Sipos E, Brem H. "Intracranial biodegradable polymers for IUdR radiosensitization of human glioma *in vivo*." American Society of Clinical Oncology, Philadelphia, PA, May 18-21, 1996.
- a121 Gibbons MC, Burger PC, Rosenberg J, Brem H, Jedlicka AE, DiSilvestre D, Lewis T, Kiser MB, Olivi A, Tamargo R, Carson B, Vogelstein B, Levitt RC. "Glioblastomas (GBMs) associated with germ-line mutations in hMLH1." American Association of Neuropathologists, Vancouver, BC, June 12-16, 1996.
- a122 Sills AK, Zhao Z, van Wessem K, Crongeyer J, Tyler B, Ewend MG, Leong K, Brem H. "Intracranial delivery of interleukin-2 by microspheres in the treatment of brain tumors." Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23(1996) Controlled Release Society, Inc., Kyoto, Japan, July 1996.
- a123 Kalyanasundaram S, Zhao Z, Sills A, Brem H, Leong KW. "Controlled release for immunotherapy: Analysis of intracranial transport of IL-2." Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 23(1996) Controlled Release Society, Inc., Kyoto, Japan, July 1996. (Presentation)
- a124 Shikani A, Domb A, Tyler B, Brem H. "In vitro cytotoxicity of polymer chemotherapy against squamous cell carcinomas of the head and neck. 4th International Conference on Head and Neck Cancer. Toronto, Canada, July 28-August 1, 1996.
- a125 Samdani A, Watts M, Sills AK, Dawson VL, Brem H. "Nitric oxide produced by glia inhibits growth of human and experimental primary brain tumors." Congress of Neurological Surgeons, Montreal, Canada, Sept 28 - Oct 3, 1996.
- a126 Samdani A, Sills AK, Zhao Z, Tyler B, Brem H. "Systemic vaccination with GM-CSF microspheres protects against growth of intracranial melanoma." Congress of Neurological Surgeons, Montreal, Canada, Sept 28 - Oct 3, 1996.
- a127 Anderson RC, Ewend MG, Pardoll DM, Jaffee EM, Brem H. "Single site and multiple site vaccinations with GM-CSF secreting cells are equally effective at generating immunity against intracranial B16F10 melanoma." Congress of Neurological Surgeons, Montreal, Canada, Sept 28 - Oct 3, 1996.
- a128 Ewend MG, Tabassi K, Williams J, Tyler BM, Brem, H. "Intracranial delivery of chemotherapy from biodegradable polymers is effective against experimental brain metastases." Congress of Neurological Surgeons, Montreal, Canada, Sept 28 - Oct 3, 1996.
- a129 Sills Ak, Zhoa Z, Leong K, Tyler B, Crongeyer J, Pardoll D, Brem H. "Intracranial delivery of interleukin-2 prolongs survival in primary and metastatic brain tumor models." Congress of Neurological Surgeons, Montreal, Canada, Sept 28 - Oct 3, 1996.
- a130 Williams J, Dillehay L, Sipos E, Fahlman C, Tabassi K, Brem H. "Synthetic implantable biodegradable polymers for IUdR radiosensitization of human glioblastoma *In vivo*." Congress of Neurological Surgeons, Montreal, Canada, Sept 28 - Oct 3, 1996.
- a131 Ewend MG, Anderson R, Tabassi K, Tyler BM, Babel KM, Williams JA, Brem H. "Local delivery of BCNU from biodegradable polymer is superior to radiation therapy in treating intracranial melanoma metastases." Surgical Forum, Congress of the American College of Surgeons, San Francisco, CA, Oct. 8, 1996.
- a132 Williams J, Tabassi K, Sipos E, Brem H. "Polymers for IUdR radiosensitization of experimental glioblastoma." Society of Neuro-Oncology, Santa Fe, NM, Nov. 8-10, 1996.
- a133 Sills AK, Tyler B, Laterra J, Brem H. "Squalamine blocks endothelial activation by common brain tumor mitogens." Society of Neuro-Oncology, Santa Fe, NM, Nov. 8-10, 1996.
- a134 Fung LK, Ewend M, Sills A, Sipos E, Thompson R, Watts M, Brem H, Saltzman WM. "Carmustine distribution during polymeric interstitial chemotherapy in the primate brain." Society of Neuro-Oncology, Santa Fe, NM, Nov. 8-10, 1996.
- a135 Davis JD, Bohan E, Olivi A, Long DM, Weingart JD, Sampath P, Brem H. "Clinical experience with Gliadel[®]" Society of Neuro-Oncology, Santa Fe, NM, Nov. 8-10, 1996.
- a136 Sills AK, Zhao Z, Ewend MG, Tyler B, vanWessem K, Leong K, Brem H. "Interstitial immunotherapy with interleukin-2 inhibits growth and recurrence of brain metastases." Scientific Assembly of the Southern Medical Association, Baltimore, MD, Nov. 20-24, 1996.
- a137 Ewend MG, Williams J, Tyler B, Anderson R, Tabassi K, Brem H. "BCNU-polymer and concurrent radiation therapy prolong survival in a malignant glioma model." Scientific Assembly of the Southern Medical Association, Baltimore, MD, Nov. 20-24, 1996.
- a138 Crongeyer JW, Sills AK, Tyler B, Brem H. "Efficacy of local dexamethasone in the treatment of brain tumors." Scientific Assembly of the Southern Medical Association, Baltimore, MD, November 20-24, 1996.
- a139 Watts MC, Williams JA, Wharam MD, Herman MG, Nauta H, Brem H. "Stereotactic radiosurgery in the

- a140 treatment of low-grade glioma." LINAC Radiosurgery, Lake Buena Vista, Florida, December 11-15, 1996.
- a141 Sandberg D, Watts M, Tyler B, Brem H. "Cytotoxicity of Taxotere in vitro against human and rat glioma cell lines." The American Association of Neurological Surgeons, Denver, CO, April 12-17, 1997.
- a141 Watts M, Sandberg D, Sills A, Bohan E, Brem H. "Chemotherapeutic resistance patterns of tumor specimens from patients with glioblastoma multiforme and glioma cell lines." The American Association of Neurological Surgeons, Denver, CO, April 12-17, 1997.
- a142 Watts MC, Lesniak M, Burke M, Samdani A, Brem H. "Controlled release of adriamycin in the treatment of malignant glioma." The American Association of Neurological Surgeons, Denver, CO, April 12-17, 1997.
- a143 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.
- a144 Samdani AF, Watts M, Sills AK, Tyler BM, Dawson VL, Dawson TM, Brem H. "Nitric oxide produced by glia inhibits growth of metastatic brain tumor." The American Association of Neurological Surgeons, Denver, CO, April 12-17, 1997.
- a145 Yazdi HA, Suh KW, Tyler B, Brem H, Pardoll D, Choti MA. "Therapeutic efficacy of local IL-2 for the treatment of liver melanoma metastasis in the murine model." American Association for Clinical Research, San Diego, CA, April 12-17, 1997.
- a146 Burke MD, White MC, Watts MC, Lee JK, Tyler, BM, Posner GH, Brem H. "Hybrid analogs of 1,25-dihydroxyvitamin D₃ having potent antiproliferative effects against murine tumor cell lines metastatic to the brain." Tenth Workshop on Vitamin D, Strasbourg, France, May 24-29, 1997.
- a147 Davis JD, Pinn M, Tyler BM, Williams J, Zasloff M, Brem H. "Inhibition of 9L glioma growth by squalamine, a novel angiogenesis inhibitor." Research Society of Neurologic Surgeons and British Neurosurgery Research Group, Jackson, Mississippi, June 18-21, 1997.
- a148 Burke MD, White MC, Lee JK, Watts MC, Tyler BM, Posner GH, Brem H. "Biodegradable polymer wafers impregnated with hybrid analogs of 1,25-dihydroxyvitamin₃ for the treatment of intracranial metastases." Fifth Annual Brown University Symposium on Vitamin D, Sept 7-9, 1997, Providence, RI.
- a149 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.
- a150 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.
- a151 Davis JD, Pinn M, Tyler BM, Williams J, Zasloff M, Brem H. "In vivo inhibition of 9L glioma growth by squalamine, a novel angiogenesis inhibitor." Congress of Neurological Surgeons, New Orleans, LA, Sept 27-Oct 2, 1997.
- a152 Hanes J, Sills AK, Zhao Z, Tyler B, Leong K, Pardoll D, Brem H. "Cancer vaccination in the brain: Local cytokine release from biodegradable polymers overcomes tolerance in experimental brain tumors." Amer Chemical Society & the Controlled Release Society, Conference on Formulation and Drug Delivery II, (presentation) La Jolla, CA, October 5-8, 1997
- a153 Kleinberg LR, Silverman, E, Brem H, Wharam MD. "Outcome of oligodendrogloma treatment in the era of modern neuroimaging." ASTRO meeting, Orlando, FL, Oct 19-22, 1997.
- a154 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 Soc. for Neuro-Oncology, Oct 31-Nov 2, 1997.
- a155 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.
- a156 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.
- a157 Suh KW, Yazdi HA, Tyler BM, Pardoll DM, Jaffee EM, Brem H, Choti M. "Antitumor effect of GM-CSF producing autologous tumor vaccine on hepatic metastatic colon tumor." American Association Study of Liver Diseases, Chicago, Nov. 7-11, 1997.
- a158 Brem H. "Development of drug delivery systems for new approaches in treating brain tumors." 4th U.S.-Japan Symposium on Drug Delivery Systems, Kauai, Hawaii, December 14-19, 1997.
- a159 Sampath P, Hanes J, Tyler B, 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."

- American Association of Neurological Surgeons, Joint Section on Tumors, Philadelphia, PA, April 15-30, 1998, presentation
- a160 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 15-30, 1998.
- a161 Sampath P, Rhines L, Brem H. "The Hunterian Neurosurgical Laboratory: the first 100 years." American Association of Neurological Surgeons, Philadelphia, PA, April 26, 1998.(presentation)
- a162 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 15-30, 1998.
- a163 Carson BS, Weingart JD, Brem H, Biser-Rohrbaugh A, Guarnieri M. "Osmotic pumps for intracranial delivery of anti-tumor therapy." American Association of Neurological Surgeons, Philadelphia, PA, April 15-30, 1998.
- a164 Fruehauf JP, Brem H, Parker R, Zonis S. "In vitro synergistic activity of L-Buthionine-S, R-sulfoximine (BSO) with BCNU and temozolomide on human glioblastoma multiforme. American Society of Clinical Oncology, Los Angeles, CA, May 16-19, 1998.
- a165 Hanes J, Suh K, Tyler B, DiMeco F, Brat D, Choti M, Leong K, Pardoll D, Brem H. "Local interleukin-2 delivery eradicates brain and liver tumors. Proceed. Int'l Symp. Control. Rel. Bioact.Mater., Controlled Release Society, Las Vegas, NV, June 21-26, 1998.
- a166 Di Meco F, Olivi A, Hanes J, Tyler B, Brat D, Torchiana E, Finocchiaro G, Brem H. "Treatment of established 9L gliosarcoma in rats using syngeneic cells engineered to secrete IL-12." Congress of Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a167 Perry VL, Watts M, Burke M, Tyler B, Pinn M, Brem H. "Biodegradable polymeric wafers impregnated with Adriamycin for the treatment of intracranial neoplasms." Congress of Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a168 Sampath P, Rhines L, Tyler B, Brem H. "Combination local delivery of docetaxel (Taxotere) and carmustine by biodegradable polymers for the treatment of 9L gliosarcoma." Congress of Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a169 Sampath P, DiMeco F, Hanes J, Tyler B, Brat D, Pardoll D, Brem H. "An experimental and histopathological study of intracranial paracrine immunotherapy with IL-2 used in combination with local chemotherapy." Congress of Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a170 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 Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a171 Rhines LD, Sampath P, Tyler BM, Dolan ME, Weingart J, Brem H. "O⁶-Benzylguanine potentiates the effects of locally delivered carmustine in an intracranial animal brain tumor model." Congress of Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a172 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.
- a173 Hanes J, Suh KW, Tyler B, Aggarwal A, DiMeco F, Pardoll D, Brem H. "Synthetic cytokine delivery systems for cancer immunotherapy." Congress of Neurological Surgeons, Seattle, WA, Oct 3-8, 1998.
- a174 Walter KA, Clatterbuck RE, Burger PC, Brem H. "Meningeal hemangiopericytoma: Predictors of recurrence and the importance of adjuvant radiotherapy." Congress of Neurological Surgeons, Seattle, Washington, Oct 3-8, 1998.
- a175 Brem H. "Implantable slow-release polymers for the treatment of brain tumors." 5th IUBMB Conference on the Biochemistry of Health and Diseases, Jerusalem, Israel Oct 18-22, 1998.
- a176 Long DM, Gordon T, Etzel A, Burleyson G, Betchen S, Shahrokh S, Brem H. "Evaluation of outcome and cost of craniotomy for tumor performed in regional academic referral centers." The American Academy of Neurological Surgery, Santa Barbara, CA, Nov 4-8, 1998.
- a177 Hanes J, Suh KW, Tyler B, Choti M, Pardoll D, Brem H. "Controlled delivery of cytokines for anti-tumor immunotherapy." American Institute of Chemical Engineers, Miami, FL. Nov 15-20, 1998.
- a178 Di Meco F, Hanes J, Tyler B, Rhines L, Brat D, Torchiana E, Finocchiaro G, Brem H, Olivi A. "Paracrine delivery of IL-12 is effective in the treatment of intracranial 9L gliosarcoma in rats." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.

- a179 Rhines LD, Sampath P, Dolan ME, Tyler B, Weingart J, Brem H. "Effect of locally-delivered carmustine is enhanced by O⁶-Benzylguanine in an intracranial brain tumor model." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998.
- a180 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.
- a181 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.
- a182 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.
- a183 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.
- a184 Perry VL, Watts M, Burke M, Tyler B, Pinn M, Brem H. "Adriamycin impregnated polymers for local treatment of intracranial neoplasms." The Society for Neuro-Oncology, San Francisco, CA, November 12-15, 1998. (Oral presentation)
- a185 Brem H, Long D, Gordon T, Bowman H, Etzel A, Burleyson G, Betchen S. "Craniotomy for tumor: Outcomes in high volume versus low volume hospitals." American Association of Neurological Surgeons, New Orleans, LA, April 24-29, 1999.
- a186 Perry VL, DiMeco F, Rhines LD, Tyler BM, Finocchiaro G, Brem H, Olivi A. "Adriamycin impregnated polymers combined with interleukin -12 for local treatment of intracranial neoplasms." American Association of Neurological Surgeons, New Orleans, LA, April 24-29, 1999.
- a187 Perry VL, Burke M, Tyler BM, Brem H. "Adriamycin impregnated PCPP:SA polymers for local therapy of intracranial tumors: toxicity studies." American Association of Neurological Surgeons, New Orleans, LA, April 24-29, 1999.
- a188 Di Meco F, Rhines LD, Hanes J, Perry VL, Tyler BM, Finocchiaro G, Brem H, Olivi A. "Effect of locally delivered interleukin-12 against intracranial 9L gliosarcoma." American Association of Neurological Surgeons, New Orleans, LA, April 24-29, 1999.
- a189 Samdani A, Rhines LD, Adamson DC, Lawson HC, Tyler BM, Brem H, Dawson VL, Dawson TM. "Astroglia mediate cytotoxic effects toward brain tumors via a nitric oxide dependent mechanism in vivo. American Association of Neurological Surgeons, New Orleans, LA, April 24-29, 1999.
- a190 Pomper M, Belden C, Ho A, Hilt DC, DalPan G, Herskovits E, Brem H. "The surgical bed after BCNU polymer wafer placement for recurrent glioma: Serial assessment with CT and MR." The Society of Neuro-Radiology, San Diego, CA, May 22-28, 1999.
- a191 Hanes J, Sills A, Zhao Z, Tyler B, DiMeco F, Brat D, Leong K, Pardoll DM, Brem H. "Controlled delivery of cytokines from biodegradable polymers for brain tumor immunotherapy." American Brain Tumor Association, Chicago, IL, July 23-25, 1999.
- a192 DiMeco F, Rhines LD, Hanes J, Lawson HC, Tyler BM, Aggarwal A, Perry VL, Brem H, Olivi A. "Local delivery of IL-12 by microspheres (IL-12MS) against experimental brain tumors." Congress of Neurological Surgeons, Boston, MA., October 30 - November 4, 1999.
- a193 Rhines L, Perry VL, Lawson HC, DiMeco F, Tyler BA, Brem H. "Locally delivered adriamycin (ADR) and interleukin-2 (IL-2) are synergistic in the treatment of intracranial 9L gliosarcoma." Congress of Neurological Surgeons, Boston, MA., October 30 - November 4, 1999.
- a194 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.
- a195 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.
- a196 Rhines L, Lawson HC, Samdani A, DiMeco F, Tyler B, Dawson VL, Brem H. "Stimulation of astroglia with interleukin-4, interleukin-12, and interleukin-13: Effects on co-cultured tumor cells." Congress of Neurological Surgeons, Boston, MA., October 30 - November 4, 1999.
- a197 Lawson HC, Rhines L, Wetzel M, Tyler BM, Faircloth G, Brem H. "Aplidine and Ecteinascidin-743:

- Cytotoxicity of two novel anti-tumor agents against primary and metastatic brain tumor lines *in vitro*." Congress of Neurological Surgeons, Boston, MA., October 30 - November 4, 1999.
- a198 DiMeco F, Brem H, Lawson HC, Bohan E, Sampath P, Weingart J, Olivi A. "Interstitial chemotherapy for malignant gliomas: The Johns Hopkins Experience." The Associazione Italiana di Neuro-Oncologia, VI Congresso, Milan, Italy, November 17-19, 1999.
- a199 DiMeco F, Rhines LD, Hanes J, Lawson HC, Tyler BM, Aggarwal A, Perry VL, Brem H, Olivi A. "Local IL-12 delivered by biodegradable microspheres (IL-12MS) for the treatment of experimental brain tumors." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- a200 Lawson HC, Rhines LD, Wetzel M, Tyler BM, Faircloth G, Brem H. "*In vitro* activity of two novel anti-tumor agents against primary and metastatic brain tumor lines." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- a201 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 O⁶-benzylguanine." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- a202 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.
- a203 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.
- a204 Rhines LD, Lawson HC, DiMeco F, Samdani A, Tyler B, Dawson VL, Dawson T, Brem H. "Astroglia exposed to interleukin-4, interleukin-12, or interleukin-13 significantly affect the growth of co-cultured tumor cells." The Society of Neuro-Oncology, Scottsdale, AZ, November 18-21, 1999.
- a205 Haroun RI, Liu JM, Bettegowda C, Li KW, Tyler BM, Brem H. "Combination chemotherapy and immunotherapy for treatment of experimental intracranial tumors." American Association for Cancer Research, San Francisco, CA, April 1-5, 2000.
- a206 Parker R, Kyshtoobayeva A, Mehta R, Brem H, Brem S, Vanier V, Barger J, Fruehauf JP. "In vitro drug response (IVDR) and prognostic marker (M) profiles in primary brain tumors." American Association for Cancer Research, San Francisco, CA, April 1-5, 2000.
- a207 Haroun RI, Bettegowda C, Khan L, Brem H. "Effect of COL-3, an anti-angiogenesis agent, on rat brain endothelial cell proliferation. The American Association of Neurological Surgeons, San Francisco, CA, April 8-13, 2000.
- a208 Haroun RI, Khan L, Bettegowda C, Crumpler E, Landa J, Brem H. "In vivo toxicity study of topoisomerase II inhibitor 9-chloro-methyl-ellipticinium acetate via local intracranial delivery." The American Association of Neurological Surgeons, San Francisco, CA, April 8-13, 2000.
- a209 Weingart J, Kleinberg L, Brem H, Burger P, Olivi A, Grossman SA. "Necrosis/treatment effect as pathologic finding following Gliadel and cranial radiation (RT) for newly diagnosed glioblastoma multiforme (GBM). American Society of Clinical Oncology, New Orleans, LA. May 20-23, 2000.
- a210 Walter KA, Li K, Dang W, Troiano G, Tyler B, Brem H. "Paclitaxel: Polilactofate microspheres versus 9L gliosarcoma: efficacy, toxicity, pharmacology." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a211 Haroun RI, Li KW, Tyler B, Guerin C, Zerler B, Brem H. "Chemically modified tetracyclines inhibit solid tumor growth in brain tumor models *in vivo*." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a212 Haroun RI, Liu JM, Reavey-Cantwell JF, Li KW, Bettegowda C, Tyler B, Brem H. "Systemic immunotherapy (GM-CSF) potentiates the effects of interstitial chemo-immunotherapy in treatment of experimental intracranial tumors. Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a213 Haroun RI, Li KW, Rhines LD, DiMeco F, Lawson HC, Tyler BM, Zahurak M, Piantadosi S, Brem H. "Locally delivered 4-hydro-peroxycyclophosphamide (4HC) potentiates interleukin-2 (IL-2) immunotherapy in the treatment of intracranial 9L gliosarcoma." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a214 Haroun RI, Li KW, Rhines LD, DiMeco F, Lawson HC, Tyler BM, Zahurak M, Piantadosi S, Brem H. "Locally delivered paclitaxel potentiates interleukin-2 (IL-2) immunotherapy in the treatment of experimental

- a215 malignant glioma. Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
 Haroun RI, Li KW, Tyler B, Radosta J, Dolan ME, Brem H, Weingart J. "Intracranial delivery of O6-Benzylguanine reduces intracranial levels of O6-alkylguanine-DNA alkyltransferase." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a216 Reavey-Cantwell JF, Haroun RI, Zahurak M, Clatterbuck RE, Parker RJ, Fruehoff JP, Brem H. "Evaluation of prognostic value of tumor markers in a cohort of patients with glioblastoma multiforme: tumor profiling." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a217 Li KW, Walter KA, Ngwaba C, DiMeco F, Haroun R, Olivi A, Brem H. "Intraventricular meningiomas: The Johns Hopkins Experience." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a218 DiMeco F, Cohen SE, Li KW, Tyler BM, Denaro L, Brem H, Olivi A. "Mitoxantrone: Potential for polymer based interstitial treatment of malignant gliomas." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a219 Samdani AF, Rhines L, Adamson C, Lawson HC, Tyler B, Brem H, Dawson VL, Dawson TM. "Astroglia induce cytotoxic effects towards brain tumors via a nitric oxide dependent pathway both *in vitro* and *in vivo*." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a220 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.
- a221 Moriarity JL, Hurt KJ, Brem H, Snyder S. "Molecular cloning and characterization of Bakt 1: A novel transcription factor that interacts with Akt." Congress of Neurological Surgeons, San Antonio, TX. September 23-28, 2000.
- a222 Weingart J, Brem H, Grossman SA, Burger P, Wharam M, Kleinberg L. "Gliadel followed by radiotherapy for newly diagnosed malignant glioma: Safety results, pathologic findings, and survival." I.J. Radiation Oncology, 48(3), p. 256, 2000.
- a223 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.
- a224 Moriarity JL, Hurt KJ, Brem H, Snyder S. "Molecular cloning and characterization of Bakt 2: A novel cytosolic enzyme that interacts with Akt." The American Association of Neurological Surgeons, Toronto, Canada, April 21-26, 2001.
- a225 DiMeco F, Li KW, Tyler B, Hanes J, Brem H, Olivi A. "Interleukin D12 delivery by biodegradable microspheres (IL-12 MS) for the treatment of metastatic brain tumors." The American Association of Neurological Surgeons, Toronto, Canada, April 21-26, 2001.
- a226 DiMeco F, Li KW, Tyler BM, Wolf A, Denaro L, Brem H, Olivi A. "Toxicity and efficacy of interstitially delivered mitoxantrone for the treatment of malignant brain tumors." The American Association of Neurological Surgeons, Toronto, Canada, April 21-26, 2001.
- a227 Tyler BM, DiMeco F, Li KW, Wolf A, Cohen SE, Denaro L, Brem H, Olivi A. "Mitoxantrone: A new agent for the treatment of experimental brain tumors: In vitro assessment." The American Association of Neurological Surgeons, Toronto, Canada, April 21-26, 2001.
- a228 Kleinberg L, Weingart J, Olivi A, Burger P, DiMeco F, Brem H, Wharam M. "Outcome with Gliadel followed by radiotherapy in newly diagnosed glioblastoma (GBM)." The American Association of Neurological Surgeons, Toronto, Canada, April 21-26, 2001.
- a229 Olivi A, Barker F, DiMeco F, Tatter S, Judy K, Burak E, Hilt D, Grossman S, Fisher JD, Brem H, Piantadosi S. "Results of a multicenter Phase I dose escalation study of interstitial BCNU administered via wafers to patients with recurrent malignant glioma." The American Association of Neurological Surgeons, Toronto, Canada, April 21-26, 2001.
- a230 Chang SM, Schmidt MH, Barker F, Kasper R, McDermott M, Laws ER, Lillehei K, Bernstein M, Brem H, Sloan A, Berger M, The Glioma Outcome Investigators. "Perioperative complications of first vs second craniotomy among patients enrolled in the Glioma Outcome (GO) Project." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a231 DiMeco F, Li KW, Tyler BM, Wolf A, Brem H, Olivi A. "Locally delivered mitoxantrone by biodegradable polymers for the treatment of malignant gliomas." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a232 Storm PB, Renard VM, Ye K, Tyler B, Moriarity JL, Brem H. "Noscapine hydrochloride arrests glioma cells at metaphase and is a potential radiosensitizer." Congress of Neurological Surgeons, San Diego, CA, Sept

- 29-Oct 4, 2001.
- a233 Storm PB, Weingart JD, Brem H, Moriarity JL. "Camptothecins *in vitro* cytotoxicity against gliomas is enhanced by Wortmannin without directly effecting the PI(3)Kinase/Akt Pathway." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a234 Storm PB, Moriarity JL, Renard VM, Fischer C, Tyler B, Brem H, Weingart J. "Systemic delivery of CPT-11(Irinotecan) fails to enhance systemic or local BCNU efficacy against intracranial 9L gliosarcoma." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a235 Storm PB, Renard VM, Moriarity JL, Tyler B, Brem H, Weingart J. "Intracranial delivery of camptothecin against 9L gliosarcoma is enhanced by systemic delivery of BCNU." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a236 Renard VM, Storm PB, Ye K, Fischer C, Tyler B, Moriarity JL, Brem H. "Noscapine inhibits gliomas by disrupting microtubule arrays and inducing apoptosis." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a237 Gabikian P, Li K, Tyler B, Dillehay L, Dang W, Brem H, Walter KA. "Intracranial delivery of paclitaxel by biodegradable polymer microspheres radiosensitizes malignant gliomas." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a238 Gabikian P, Li K, Magee C, Tyler B, Foster F, Dang W, Brem H, Walter KA. "Safety of intracranial paclitaxel: Polilactofate microspheres in dogs." Congress of Neurological Surgeons, San Diego, CA, Sept 29-Oct 4, 2001.
- a239 Toung TJK, Tyler B, Brem H, Traystman RJ, Kirsch JR, Hurn PD, Bhardwaj A. "Hypertonic saline ameliorates cerebral edema associated with experimental brain tumor." Society of Neurosurgical Anesthesia and Critical Care, New Orleans, LA., Oct 12, 2001.
- a240 Toung TJK, Tyler B, Brem H, Traystman RJ, Kirsch JR, Hurn PD, Bhardwaj A. "Hypertonic saline ameliorates cerebral edema associated with experimental brain tumor." Society for Neuroscience, San Diego, CA, Nov. 10-15, 2001.
- a241 DiMeco F, Li KW, Tyler B, Wolf AS, Rizzo P, Brem H, Olivi A. "Local delivery of mitoxantrone by biodegradable polymers for the treatment of experimental brain tumors." World Federation of Neuro-Oncology Societies/Society for Neuro-Oncology, Washington DC, Nov 15-18, 2001.
- a242 Tyler BM, Margulies Y, Heller J, Huang RC, Brem H. "Tetra-O-methyl Nordihydroguaiaretic Acid (M4N): A novel agent for the interstitial treatment of experimental brain tumors- an *in vitro* and *in vivo* assessment." Congress of Neurological Surgeons, Philadelphia, PA, Sept 21-26, 2002.
- a243 Frazier JL, Wang PP, Tyler B, Pradilla G, Weingart JD, Brem H. "Local intracranial delivery of minocycline for the treatment of 9L gliosarcoma." Congress of Neurological Surgeons, Philadelphia, PA, Sept 21-26, 2002.
- a244 Frazier JL, Pradilla G, Wang PP, Berry D, Tyler B, Langer R, Brem H. "Intracranial delivery of DNA to brain tumor cells using biodegradable polymers." Congress of Neurological Surgeons, Philadelphia, PA, Sept 21-26, 2002.
- a245 Lesniak MS, Tyler B, Brem H. "Delivery of local immunotherapy via a Xenogenic cell line." Congress of Neurological Surgeons, Philadelphia, PA, Sept 21-26, 2002.
- a246 Lesniak MS, Gabikian P, Tyler B, Pardoll D, Brem H. "The role of systemic corticosteroids in the immunotherapy of experimental brain tumors." Congress of Neurological Surgeons, Philadelphia, PA, Sept 21-26, 2002.
- a247 Pradilla G, Wang PP, Petrangolini G, Case D, Tyler BM, Francescato P, Chillemi F, Brem H, Olivi A, DiMeco F. "Angiogenesis inhibition properties of a novel endostatin analog: *in vivo* and *in vitro* characteristics using controlled-release polymers." American Association of Neurological Surgeons, San Diego, CA, April 26-May 1, 2003.
- a248 Amundson EW, Hdeib A, Tyler BM, Brem H, Weingart J. "SJG-136: A novel agent for the treatment of experimental gliomas: An *in vitro* study." American Association of Neurological Surgeons, San Diego, CA., April 26-May 1, 2003.
- a249 Ziewacz J, Amundson EW, Wang P, Tyler B, Brem H. "In vitro and in vivo trials of furegrelate as a novel therapy for malignant gliomas." American Association of Neurological Surgeons, San Diego, CA., April 26-May 1, 2003.
- a250 Pradilla G, Petrangolini G, Legnani FG, Tyler BM, Francescato P, Chillemi F, Brem H, Olivi A, DiMeco F. "Inhibition of angiogenesis *in vitro* and *in vivo* by local delivery of a novel endostatin fragment." American Association for Cancer Research, Toronto, Canada, April 5, 2003.

- a251 Weaver KD, Yohay K, Johns D, Tyler B, Rothstein JD, Brem H. "Gene therapy utilizing an inducible potassium channel decreases *in vitro* glutamate-mediated human glioma migration." Congress of Neurological Surgeons, Denver, CO, Oct 18-23, 2003
- a252 Weaver KL, Yohay K, Johns D, Tyler B, Rothstein JD, Brem H. "Viral delivery of an inducible inward-rectifying potassium channel gene protects murine astrocytes from glutamate-mediated cell death." Congress of Neurological Surgeons, Denver, CO, Oct 18-23, 2003
- a253 Wang PP, Khalessi AA, Siddique M, Winter J, Tyler BM, Brem H. "Quinacrine as an adjuvant for intracranial BCNU in the rat intracranial 9L gliosarcoma model. Congress of Neurological Surgeons, Denver, CO, Oct 18-23, 2003
- a254 Wang PP, Pradilla G, Ziewacz JE, Winter J, Li KW, Gabikian P, Magee C, Brem H, Walter KA. "Local intracranial delivery of paclitaxel with the PACLIMER delivery system: A dose-escalation toxicity study in a canine model." Congress of Neurological Surgeons, Denver, CO, Oct 18-23, 2003
- a255 Amundson EW, Caplan J, Tyler BM, Brem H, Weingart JD. "SJG-136: A novel agent for the treatment of experimental gliomas: An *in vivo* toxicity and efficacy study." Congress of Neurological Surgeons, Denver, CO, Oct 18-23, 2003
- a256 Komotor RJ, Burger PC, Carson BS, Brem H, Olivi A, Tihan T. "Pilocytic and pilomyxoid astrocytomas: Preliminary investigations into cellular and molecular differences." Congress of Neurological Surgeons, Denver, CO, Oct 18-23, 2003
- a257 Upadhyay U, Amundson E, Caplan J, Tyler BM, Brem H. "Mechanistic and efficacy studies of nimesulide in combination with BCNU versus experimental gliomas. American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a258 Upadhyay U, Amundson E, Tyler BM, Fisch A, Brem H. "Efficacy studies of dexamethasone in combination with BCNU versus experimental gliomas." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a259 Upadhyay U, Posner S, Tyler BM, Brem H. "In vitro and *in vivo* and efficacy studies of BCNU combination therapy." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a260 Brastianos P, Khalessi A, Tyler B, Wang P, Brem H. "Quinacrine as an adjuvant for intracranial BCNU treatment of glioblastoma." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a261 Goodwin C, Pradilla G, Vargas DL, Raza SM, Legnani FG, Tyler BM, Brem H, Olivi A. "Fas-ligand mediates cytotoxicity of peri-tumoral T-lymphocytes in the 9L gliosarcoma model." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a262 Hsu W, Pradilla G, Goodwin C, Legnani FG, Tyler BM, Jick J, Olivi A, Brem H. "Local delivery of lactacystin via controlled-release polymers prolongs survival in a 9L gliosarcoma model." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a263 Weaver KD, Yohay K, Haque R, Johns D, Tyler B, Rothstein JD. "Inducible anti-excitotoxic adenoviral gene therapy improves survival in a nude mouse intracranial human glioma model." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004. (oral presentation)
- a264 Haque R, Weaver K, Yohay K, Tyler B, Zohar Y, Rothstein J, Brem H. "Antagonism of brain-tumor mediated excitotoxic destruction and invasion using a Glutamate release inhibitor." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a265 Legnani FG, Pradilla G, Raza S, Tyler BM, Zamora G, DiMeco F, Brem H., Olivi A. "Verapamil administration decreases resistance to mitoxantrone therapy in malignant gliomas and pro-metastatic tumor cell lines *in vitro*." American Association of Neurological Surgeons, Orlando, FL, May 1-6, 2004.
- a266 Slager J, Tyler B, Shikanov A, Domb A, Sidranski D, Brem H. "Controlled release of bioactive anti-neoplastic RNase from polyanhydride." Controlled Release Soc, Honolulu, Hawaii, June 12-16, 2004.
- a267 Pradilla G, Legnani FG, Hsu W, Tyler BM, Gaini SM, DiMeco F, Olivi A, Brem H. "The proteasome inhibitor lactacystin prolongs survival in animals intracranially challenged with 9L gliosarcoma when delivered locally via controlled-release polymers." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a268 Pradilla G, Legnani FG, Tyler BM, Gaini SM, Francescato P, Chillemi F, Brem H, Olivi A, DiMeco F. "Combined treatment of systemic BCNU and a locally delivered anti-angiogenic fragment of human endostatin prolong survival in rats challenged intracranially with 9L gliosarcoma." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a269 Pradilla G, Mavinkurve G, Legnani FG, Tyler BM, Brem H, Jallo GI. "A novel intramedullary spinal cord tumor model in rabbits." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.

- a270 Legnani FG, Hertz SJ, Pradilla G, Zamora G, Tyler BM, Gaini SM, DiMeco F, Brem H, Olivi A. "Epirubicin inhibits growth in malignant glioma and CNS pro-metastatic tumor cell lines in vitro." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a271 Legnani FG, Zamora G, Pradilla G, Hertig SJ, Tyler BM, Gaini SM, DiMeco F, Brem H, Olivi A. "The angiogenesis inhibitor minocycline significantly enhances the cytotoxicity of carboplatin on cell lines of malignant gliomas and CNS metastatic tumors." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a272 Legnani FG, Pradilla G, Goodwin C, Vargas DL, Tyler BM, Gaini SM, DiMeco F, Brem H, Olivi A. "T-cell apoptosis surrounding malignant gliomas could be related to decreased anti-tumor immunity and might be caused by tumor-derived Fas ligand in the 9L gliosarcoma model." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a273 Tyler B, Kim G, Tupper M, Li Y, Cima M, Langer R, Brem H. "Local Delivery of BCNU through novel microchip technology inhibits tumor growth in the rat 9L flank model." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a274 Brem S, Tyler BM, Legnani F, Pradilla G, Fisch A, Brem H. "Local delivery of temozolomide against an experimental malignant glioma model." Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a275 Thai QA, Pradilla G, Legnani F, Brem H, Tamargo R. "Stereotactic implantation of controlled-release iStringi polymers in a human head: Technical report. Congress of Neurological Surgeons, San Francisco, CA., October 16-21, 2004.
- a276 Mantha A, Legnani FG, Pradilla G, Tyler BM, Brem H, Gokaslan ZL. "A novel model for the study of intraosseous spinal metastasis." Congress of Neurological Surgeons, San Fran, CA., Oct 16-21, 2004.
- a277 Zamora-Berridi GJ, Legnani FG, Pradilla G, Hertig S, Tyler BM, Brem H. "Cytotoxicity and in vivo safety of carboplatin and minocycline for the treatment of malignant gliomas." AANS/CNS Section on Pediatric Neurological Surgery, San Francisco, CA, December 8-11, 2004.
- a278 Pradilla G, Mavinkurve G, Legnani FG, Tyler BM, Gosalia N, Pindrik J, Hdeib A, Bagley CA, Brem H, Jallo G. "Toxicity and efficacy study of locally-delivered chemotherapy in a novel rat model of intramedullary spinal cord tumors." AANS/CNS Section on Pediatric Neurological Surgery, San Francisco, CA, December 8-11, 2004.
- a279 Pradilla G, Mavinkurve G, Legnani FG, Tyler BM, Gosalia N, Pindrik J, Hdeib A, Bagley CM, Brem H, Jallo G. "A novel model of primary spinal cord tumors in rabbits: functional, radiological and histopathological characterizations." AANS/CNS Section on Pediatric Neurological Surgery, San Francisco, CA, December 8-11, 2004.
- a280 Mavinkurve G, Pradilla G, Legnani FG, Tyler BM, Gosalia N, Pindrik J, Hdeib A, Bagley CM, Brem H, Jallo G. "A novel rat model for intramedullary spinal cord glioma." AANS/CNS Section on Pediatric Neurological Surgery, San Francisco, CA, December 8-11, 2004.
- a281 Legnani FG, Pradilla G, Thai QA, Vargas D, Tyler BM, Zamora G, Gaini SM, DiMeco F, Brem H, Olivi A, Brem H. "Local delivery of verapamil decreases Multi-Drug Resistance in a novel mitoxantrone resistant tumor model in rats." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a282 Legnani FG, Pradilla G, Goodwin C, Vargas DL, Thai QA, Tyler BM, Raza S, Gaini SM, DiMeco F, Brem H, Olivi A. "Direct activation of the wild-type Fas receptor fails to induce apoptosis in experimental gliomas *in vitro*." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a283 Pradilla G, Hdeib A, Legnani FG, Williams T, Tyler BM, Caplan JM, Bagley CA, Brem H, Jallo G. "Locally delivered Oncogel (1.5mg/ml Paclitaxel) is safe for intramedullary injections and significantly prolongs onset of paraparesis in a rat model of intramedullary spinal cord tumors." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a284 Caplan JM, Pradilla G, Legnani FG, Hdeib A, Williams T, Mavinkurve G, Bagley CA, Brem H, Jallo G. "Experimental intramedullary gliomas in rats: functional progression and histopathological characterization." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a285 Thai QA, Pradilla G, Legnani FG, Hsu W, Brem H, Tamargo RJ. ""String" polymer implantation in a human cadaver head using stereotactic techniques: Technical report." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a286 Brem S, Tyler B, Legnani F, Pradilla G, Caplan J, Posner S, Brem H. "Combination toxicity studies of temozolomide and BCNU in the rat experimental model." American Association of Neurological Surgeons,

- New Orleans, LA., April 16-21, 2005.
- a287 Williams T, Li Yawen, Tyler BM, Tupper M, Cima M, Langer R, Brem H. "Inhibition of a rat flank gliosarcoma using a chemotherapeutic agent released from a microelectromechanical systems device." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a288 Werner K, Zohar Y, Fisch A, Tyler B, Legnani F, Brem H, Johns D. "Local delivery of IL-12 via a novel GFP adenovirus vector to 9L gliosarcoma cells and rat brain parenchyma." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a289 Martinez C, Slager J, LaDana C, Togioka B, Tyler B, Brem H. "Cytotoxicity of sulindac sulfone against experimental malignant gliomas." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a290 Hertig S, Legnani FG, Pradilla G, Zamora G, Thai QA, Fiorindi A, Tyler BM, Gaini SM, DiMeco F, Brem H, Olivi A. "Epirubicin has potent anti-glioma activity and shows sustained-release when incorporated into a biodegradable controlled-release polymer." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a291 Hdeib A, Pradilla G, Mavinkurve GG, Legnani FG, Caplan J, Williams T, Bagley C, Brem H, Jallo G. "Safety of locally delivered chemotherapy for experimental intramedullary spinal cord tumors in rabbits." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a292 Slager J, Tyler B, Martinez C, Shogen T, Domb A, Brem H. "Controlled release of EGF-Onconase from polyanhydride: Potential treatment for brain tumors." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a293 Fiorindi A, Brem S, Legnani FG, Tyler BM, Pradilla G, Perin A, Longatti P, Brem H, Olivi A. "Oral administration of GPI 15427 in association with BCNU polymer in the treatment of intracranial 9L rat gliosarcoma." American Association of Neurological Surgeons, New Orleans, LA., April 16-21, 2005.
- a294 Powers K, Brem H, Brugge W, Hdeib A, Jallo G, Pradilla G, Tyler B, Callahan K. "Preclinical and clinical development of a physically targeted controlled paclitaxel release product, OncoGel®, for local solid tumor management." 12th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake City, UT, Feb 21-24, 2005.
- a295 Tyler B, Brem S, Caplan J, Hdeib AM, Legnani FG, Pradilla G, Brem H. "Validation of an experimental malignant glioma model with temozolamide and radiation therapy." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a296 Tyler B, Kim G, Nair S, Caplan J, Tupper M, Li Y, Cima M, Langer R, Brem H. "Polymeric microchip delivery of BCNU inhibits tumor growth in the rat 9L gliosarcoma flank model." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a297 Caplan J, Hdeib AM, Pradilla G, Tyler B, Legnani FG, Brem H, Jallo GI. "A novel model of infiltrative intramedullary spinal cord tumors in rats." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a298 Caplan J, Hdeib AM, Pradilla G, Tyler B, Legnani FG, Brem H, Jallo GI. "Local delivery of paclitaxel from the Paclimer/E delivery system for the treatment of intramedullary spinal cord tumors in an experimental rat model." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a299 Hdeib AM, Caplan J, Pradilla G, Tyler B, Legnani FG, Brem H, Jallo GI. "Locally delivered OncoGel™ against an established 9L intramedullary spinal cord gliosarcoma delays the onset of paresis in an experimental rodent model." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a300 Hdeib AM, Caplan J, Pradilla G, Tyler B, Legnani FG, Brem H, Jallo GI. "Local delivery of Paclitaxel with OncoGel™ delivery system for the treatment of intramedullary spinal cord tumors in an experimental rodent model." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a301 Pennant W, Slager J, Tyler B, Brem H. "Efficacy of prolonged local delivery of a P13K kinase antagonist in an animal model of intracranial glioma." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a302 Raza SM, Gallia GL, Weingart JD, Brem H, Olivi A. "Cerebral venous sinus thrombosis: surgical considerations in the management of parasagittal meningiomas invading the superior sagittal sinus." Congress of Neurological Surgeons, Boston, MA., October 8-13, 2005.
- a303 Slager J, Tyler B, Bagley K, Levitsky H, Brem H. "Efficacy of toll like receptor-9-ligand CpG oligodeoxynucleotides, released from poly(lactic acid) stereocomplexes, on B16 murine melanoma by stimulating an immune response." Congress of Neurological Surgeons, Boston, MA., Oct 8-13, 2005.
- a304 Sampath P, Lawson C, Bohan E, Olivi A, Weingart JD, Brem H. "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., October 8-13, 2005.
- a305 Pearlman J, Slager J, Tyler B, LaDana C, Brem H. "Toxicity and efficacy of a proteasome-inhibitor applied to tumor models in vitro and in vivo." American Association of Neurological Surgeons, San Francisco, CA, April 22-27, 2006.
- a306 Tseng K, Yohay K, Tyler B, Rothstein J, Brem H. "Local polymer-based delivery of the non-competitive NMDA receptor antagonist memantine prolongs survival in the 9L rat intracranial glioma model." American Association of Neurological Surgeons, San Francisco, CA, April 22-27, 2006..
- a307 Hdeib A, Tyler B, Legnani F, Caplan J, Reidler J, DiMeco F, Hanes J, Brem H. "Efficacy of locally delivered IL-12 polymer microspheres in an experimental intracranial 9L gliosarcoma rat model. American Association of Neurological Surgeons, San Francisco, CA, April 22-27, 2006.
- a308 Pennant W, Caplan J, Reidler J, Hdeib A, Pradilla G, Tyler B, Jallo G. "20Gy radiotherapy prolongs paresis-free survival alone and in combination with locally delivered paclitaxel (OncoGel®) in an experimental rat intramedullary spinal cord tumor model." American Association of Neurological Surgeons, San Francisco, CA, April 22-27, 2006.
- a309 Bookland M, Nande R, Tyler B, Schluep T, Weingart J, Brem H. "In vitro and in vivo toxicity testing for the prolonged local delivery of a Cyclosert®-camptothecin polymer conjugate in a model of intra-cranial glioma. American Association of Neurological Surgeons, San Francisco, CA, April 22-27, 2006.
- a310 Hdeib A, Reidler J, Tyler B, DiMeco F, Vick J, Caplan J, Hanes J, Brem H. "Efficacy of controlled local delivery of IL-12 from polymer microspheres in a metastatic melanoma intracranial mouse model." American Association of Neurological Surgeons, San Francisco, CA, April 22-27, 2006.
- a311 Baba S, Horti A, Cho S, Brem H, Tyler B, Fox J, Engles JM, Wahl RL. "Distribution of ¹⁸F-Adenosine in normal and brain tumor bearing rats." Society of Nuclear Medicine, San Diego, CA., June 3-7, 2006.
- a312 Tyler BM, Kim G, Tupper M, Li Y, Cima M, Langer R, Brem H. "Local delivery of BCNU through novel microchip technology inhibits tumor growth in the rat 9L flank model." Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN Aug 24-25, 2006 (Oral Presentation)
- a313 Legnani FG, Hertig S, Vick J, Pradilla G, Tyler BM, Li K, DiMeco F, Brem H, Olivi A. "Epirubicin inhibits growth in malignant glioma and CNS pro-metastatic tumor cell lines both in vitro and in vivo." Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN Aug 24-25, 2006 (Oral Presentation)
- a314 Pennant WA, Caplan JM, Reidler J, Hdeib A, Pradilla G, Tyler B, Brem H, Jallo GI. "20 Gy radiotherapy prolongs paresis-free survival alone and in combination with locally delivered Paclitaxel (OncoGel®) in an experimental rat intramedullary spinal cord tumor Model " Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN Aug 24-25, 2006 (Oral Presentation)
- a315 Caplan J, Hdeib A, Pradilla G, Tyler BM, Brem H, Jallo G. "A novel model of intramedullary spinal cord tumors and novel approaches to their treatment." Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN Aug 24-25, 2006 (oral presentation).
- a316 Hdeib A, Tyler B, Li Khan, DiMeco F, Hanes J, Brem H. "Efficacy of controlled local delivery of IL-12 from polymer microspheres in a metastatic melanoma intracranial mouse model." Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN Aug 24-25, 2006.
- a317 Legnani FG, Pradilla G, Thai QA, Tyler BM, DiMeco F, Brem H, Olivi A. "Apoptosis in experimental glioma cells and could be responsible for the apoptosis of T-cell surrounding malignant gliomas in vivo." Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN Aug 24-25, 2006.
- a318 Pashalides T, Allen J, Li K, Ludeman SM, Adams DJ, Wani MC, Manikumar G, Colvin OM, Brem H, Tyler B. "Camptothecin analogs demonstrate efficacy in an established intracranial rodent glioma model." Congress of Neurological Surgeons Meeting, Chicago, IL., October 7-12, 2006.
- a319 Pennant W, Hdeib AM, Tyler B, Brem H, Jallo JI "20 Gy Radiotherapy alone and in Combination with Locally Delivered Paclitaxel (OncoGel®) Prolongs Paresis-Free Survival in an Experimental Rat Intramedullary Spinal Cord Tumor Model." Congress of Neurological Surgeons Meeting, Chicago, IL., October 7-12, 2006.
- a320 Li KW, Han J, Tyler BM, Brem H. "Inhibition of JAK/STAT pathway by Tyrphostin AG490 reduces glioma proliferation." Congress of Neurological Surgeons Meeting, Chicago, IL., October 7-12, 2006.
- a321 Brem H. "Directed therapy with polymers for brain tumors." American Academy of Neurological Surgery, Greensboro, Georgia, October 17-21, 2006.
- a322 Tyler B, Renard V, Kaiser K, Fowers K, Brem H. "20Gy Radiotherapy with Locally Delivered OncoGel (6.0-mg/ml Paclitaxel) Significantly Prolongs Survival in an Experimental Rodent Glioma Model."

- a323 AANS/CNS Section on Tumors Seventh Biennial Satellite Symposium, Washington, DC, April 13-14, 2007.
Marupudi N, Renard V, Tyler BM, Li KW, Brem H, Jallo G. "17-DMAG Inhibits Glioma Tumor Cells and Improves Survival in a Rat Brainstem Glioma Model." AANS/CNS Section on Tumors Seventh Biennial Satellite Symposium, Washington, DC, April 13-14, 2007.
- a324 Vick D, Hertig S, Tyler BM, Li KW, Renard V, Kosztowski T, Legnani FG, Brem H, Olivi A. "Local Delivery of Epirubicin for the Treatment of an Experimental Rodent Glioma." AANS/CNS Section on Tumors Seventh Biennial Satellite Symposium, Washington, DC, April 13-14, 2007.
- a325 Marupudi N, Renard VM, Tyler BM., Li KW, Huang RC, Brem H, Jallo G. "Maltose-tri-O-methyl Nordihydroguaiaretic Acid (maltose-M3N) is a Potential Chemotherapeutic Agent in the Treatment of Gliomas." AANS/CNS Section on Tumors Seventh Biennial Satellite Symposium, Washington, DC, April 13-14, 2007.
- a326 Pennant WA, Tamargo R, Tyler B, Brem H, Jallo GI. "Single and fractionated radiotherapy dose schedules delay the onset of paresis in an experimental rat intramedullary spinal cord tumor model." American Association of Neurological Surgeons, Washington, DC, April 14-19, 2007.
- a327 Tyler B, Renard V, Fowers K, Li K, Brem H. A thermal gel depot for intracranial delivery of Paclitaxel (OncoGel®) with 20Gy Radiotherapy Significantly Prolongs Survival in an Experimental Rodent Glioma Model. 2nd International Meeting in Neuro-Oncology, Arezzo, Italy, June 29-30, 2007.
- a328 Li K, Rege A, Murari K, Li N, Renard V, Tyler B, Thakor N, Brem H. *In Vivo* Imaging of Intracranial Angiogenesis with LASER Speckle Imaging in Rodents. Congress of Neurological Surgeons, San Diego, September 15-20, 2007.
- a329 Renard V, Tyler B, Brem S, Li K, Brem H. Combination of Intracranial Temozolomide and BCNU in a Rodent Glioma Model. Congress of Neurological Surgeons, San Diego, September 15-20, 2007.
- a330 Okonma S, Tyler B, Li K, Renard V, Baird C, Brem H. Combinatorial Treatments with Temozolomide in Experimental Malignant Glioma *In Vitro*. Congress of Neurological Surgeons, San Diego, September 15-20, 2007.
- a331 Shira G. Ziegler, Violette M. Renard, Betty M. Tyler, Henry Brem, Alessandro Olivi. Combinatorial Treatments with Epirubicin, Temozolomide, and Radiation Therapy in Experimental Malignant Glioma *In Vitro*. AANS Annual Meeting, April 26, 2008 - May 1, 2008.
- a332 McGirt MJ, Attenello F, Gathinji M, Than K, Chaichana KL, Datoo G, Olivi A, Weingart JD, Brem H, Quinones-Hinojosa A. Extent of surgical resection is independently associated with survival in patients with malignant and low-grade brain astrocytoma." AANS Annual Meeting, April 26, 2008 - May 1, 2008.
- a333 McGirt MJ, Gathinji M, Attenello F, Than K, Chaichana KL, Ruiz AJ, Olivi A, Weingart JD, Brem H, Quinones-Hinojosa A. Persistent outpatient hyperglycemia is independently associated with decreased survival after surgical resection of malignant brain astrocytoma. AANS Annual Meeting, April 26, 2008 - May 1, 2008.
- a334 McGirt MJ, Attenello, Gathinji M, Than K, Chaichana KL, Datoo G, Olivi A, Weingart JD, Brem H, Quinones-Hinojosa A. "Association of preoperative depression and survival after primary sections of malignant brain astrocytoma. AANS Annual Meeting, April 26, 2008 - May 1, 2008.
- a335 McGirt MJ, Attenello F, Gathinji M, Than K, Chaichana KL, Datoo G, Olivi A, Weingart JD, Brem H, Quinones-Hinojosa A. Association of uncontrolled hyperglycemia with perioperative mortality, length of hospitalization, and healthcare cost for resection of supratentorial brain neoplasms. AANS Annual Meeting, April 26, 2008 - May 1, 2008.
- a336 Renard V, Tyler B, Vellimana A, Fowers K, Brem H. OncoGel™ (6.3mg/mL Paclitaxel) Combined with Temozolomide and Radiotherapy Significantly Prolongs Survival in an Experimental Rodent Glioma Model. Institute for NanoBiotechnology Symposium. Baltimore, Maryland. May 1-2, 2008.
- a337 Renard V, Tyler B, Brem S, Li K, Brem H. Combination of Intracranial Temozolomide and BCNU in a Rodent Glioma Model. Institute for NanoBiotechnology Symposium. Baltimore, MD. May 1-2, 2008.
- a338 Tyler B, Renard V, Wadsworth S, Vellimana A, Brem H. Local Delivery of Rapamycin: An *In Vitro* and *In Vivo* Toxicity and Efficacy Study in Experimental Malignant Glioma Model. Congress of Neurological Surgeons. Orlando, Florida, September 20-25, 2008.
- a339 Renard V, Tyler B, Vellimana A, Fowers K, Brem H. OncoGel™ (6.3mg/mL Paclitaxel) Combined with Temozolomide and Radiotherapy Significantly Prolongs Survival in an Experimental Rodent Glioma Model. Congress of Neurological Surgeons. Orlando, Florida, September 20-25, 2008.
- a340 Quinones-Hinojosa A, Chaichana KL, McGirt MM, Woodworth GF, Mukherjee D, Shakur S, Datoo G, Brem H. "Persistent outpatient hyperglycemia is independently associated with survival, recurrence, and malignant

- degeneration following surgery for hemispheric low grade gliomas." Congress of Neurological Surgeons. Orlando, Florida, September 20-25, 2008
- a341 McGirt M, Chaichana KL, Weingart JD, Than KD, Attenello F, Olivi A, Brem H, Quinones-Hinojosa A. "Gliadel (BCNU) wafer plus concomitant temozolomide therapy after primary resection of glioblastoma." Congress of Neurological Surgeons. Orlando, Florida, September 20-25, 2008
- a342 Coddington LT, Renard VM, Tyler BM, Ayukawa Y, Gutenkunst JR, Michaud RM, Chipkin RE, Brem H, Rothstein JD, Sattler RG. GLT-1 upregulation with small molecule compounds prevents tumor growth in animal models of experimental glioma. Society for Neuroscience, Washington DC, Nov 15-19, 2008.
- a343 Mehta V, Tyler B, Wadsworth S, Renard-Recinos V, Do H, Rosenblatt J, Li KW, Vellimana AK, Brem H. "Local Delivery of Rapamycin: An in vitro and in vivo Toxicity and Efficacy Study in Experimental Malignant Glioma Model." Congress of Neurological Surgeons, New Orleans, LA, Oct 24-29, 2009.
- a344 Rege A, Seifert A, Li K, Tyler B, Hertig S, Basaldella L, Bekelis K, Thakor N, Brem H. Monitoring Angiogenesis in Rodent Brains with Laser Speckle Imaging. Congress of Neurological Surgeons, New Orleans, LA, October 21-26, 2009.
- a345 Grossman R, Rudek MA, Brastianos H, Mehta V, Zadnik P, Hwang L, Tyler B, Brem H, Blakely J. The impact of bevacizumab on intratumoral temozolomide concentrations in a U87 rat glioma model. AANS, Philadelphia, PA, May 1-5, 2010.
- a346 Grossman R, Kashi, Tyler, B, Brem H. Linking Antibody Fc Domain to Endostatin improves the standard treatment of Experimental Glioma, AANS, Philadelphia, PA, May 1-5, 2010.
- a347 Grossman, R, Kashi, Tyler, B, Brem H. Local Delivery of Fc-endostatin Improves the Standard Treatment of Experimental Glioma. Congress of Neurological Surgeons, San Francisco, California, Oct 16-23, 2010.
- a348 Upadhyay U, Scott AW, Tyler B, Patta Y, Masi M, Basaldella L, Grossman R, Bekelis K, Brem H, Cima M, Langer R. In Vivo Efficacy and Molecular Analysis of Microcapsule-Driven Delivery of Temozolomide to Experimental High Grade GliomaL Preliminary Results. Congress of Neurological Surgeons, San Francisco, California, Oct 16-23, 2010.
- a349 Khan U, Tyler BM, Pradilla G, Aprhys C, Nance E, Basaldella L, Kumar A, Hanes J, Brem H, Olivi A. FasL Gene Knock-down Therapy Enhances the Anti-Glioma Immune Response. Royal College of Medicine, Surgery Section MIA prize, 2010.
- a350 Latimer K, Pendleton C, Olivi A, Cohen-Gadol AA, Brem H, Quinones-Hinojosa A. Historical Perspective on Medical Errors: Documentation of Surgical Mishaps at the Dawn of Neurological Surgery. CNS, San Francisco, CA, October 16-21, 2010.
- a351 Tyler BM, Grossman R, Yurter A, Huey L, Chiang C, Wicks RT, Brem H. Efficacy of Locally Implanted and Systemic Temozolomide with Avastin and Radiation Therapy in an Experimental Glioma Model. American Association of Neurological Surgeons, Denver, CO, April 9-13, 2011.
- a352 Tyler BM, Grossman R, Patta Y, Upadhyay U, Huey L, Azadi J, Cima M, Brem H. Systemically Delivered Doxil Increases Survival in Both an Intracranial Gliosarcoma Model and an Intracranial Metastatic Breast Cancer Model in Rodents. American Association of Neurological Surgeons, Denver, CO, April 9-13, 2011.
- a353 Tyler BM, Yoda Patta Y, Grossman R, Upadhyay U, Azadi J, Wicks RT, Cima M, Brem H. Efficacy of Locally Implanted Temozolomide Microcapsules in an Intracranial Metastatic Breast Cancer Model. American Association of Neurological Surgeons, Denver, CO, April 9-13, 2011.
- a354 Grossman R, Tyler BM, Blakely J, Rudek MA, Zadnik P, Khan U, Pathak A, Brem H. The impact of Cediranib, a Pan-VEGF Receptor Tyrosine Kinase Inhibitor, on Intratumoral Temozolomide Concentration in U87 Gliomas. American Association of Neurological Surgeons, Denver, CO, April 9-13, 2011.
- a355 Tyler BM, Pradilla G, Aprhys C, Khan U, Nance E, Basaldella L, Kumar A, Hanes J, Brem H, Olivi A. FasL Gene Knock-down Therapy Enhances the Anti-Glioma Immune Response. American Association of Neurological Surgeons, Denver, CO, April 9-13, 2011.
- a356 Zhou J, Wang S, Tyler BM, Grossman R, Tryggestad E, Ford E, Armour M, Yan K, Lal B, van Zijl P, Laterra J. Predicting glioma Response to Radiotherapy with Amide Proton Transfer (APT) MRI. International Society for Magnetic Resonance in Medicine (ISMRM), Montreal, Quebec, May 7-13, 2011.
- a357 Wicks RT, Yoshida J, Zambrano A, Tyler BM, Javaherian K, Grossman R, Peter Gehlbach P, Daoud YJ, Brem H, Stark WJ. Inhibition of Corneal Neovascularization by Fc-endostatin. ARVO, Orlando, FL, May 2011.
- a358 Upadhyay U, Patta Y, Tyler BM, Spencer K, Wicks RT, Van Shaik G, Brem H, Cima M, Langer R. Spatial Distribution of Drug Exposure and Cleaved Caspase-3 Expression in an Experimental Model of Brain Metastases following Microcapsule-Driven Intracranial Doxorubicin Delivery. Congress of Neurological

- Surgeons, Washington DC, October 2011.
- a359 Wicks RT, Patta Y, Tyler BM, Upadhyay U, Martin KL, Langer R, Cima M, Brem H. Efficacy of Intracranial Microcapsule Delivery of Temozolomide compared to Systemic Therapy in a Model of Metastatic Breast Carcinoma. Congress of Neurological Surgeons, Washington DC, October 2011.
- a360 Wicks RT, Yoshida J, Zambrano A, Tyler BM, Javaherian K, Grossman R, Gelbach P, Daoud Y, Stark WJ, Brem H. Inhibition of Angiogenesis by Fc-endostatin. Congress of Neurological Surgeons, Washington DC, October 2011.
- a361 Zhang K, Wicks RT, Pradilla G, Tyler BM, Brem H, Kang JU. Intra-operative Optical Coherence Tomography (OCT) Guided Tumor Resection. Congress of Neurological Surgeons, Washington DC, October 2011
- a362 Bender M, Pradilla G, Wicks RT, Garzon-Muvdi T, Jarso S, Brayton C, Weingart J, Brem H, Tyler BM. Toxicity study of Temozolomide polymers in cynomolgus monkeys. Drug Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a363 Wicks RT, Bow H, Schildhaus N, Salditch Q, Hutt M, Azadi J, Brem H, Tyler BM. Combined Intracranial Delivery and Efficacy of 3-Bromopyruvate and Dichloroacetate. Drug Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a364 Bow H, Salditch Q, Murray L, Xing J, Schildhaus N, Ye X, Zhang Y, Tyler BM, Brem H. Antiangiogenesis agent minocycline as adjuvant therapy to oral temozolomide and radiotherapy in intracranial 9L glioma. Drug Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a365 Wicks RT, Martin K, Bender M, Morano L, Tok S, Yurter A, Brem H, Tyler B. Tolerability and efficacy of combined local, polymeric temozolomide delivery with systemic temozolomide in a rodent glioma model. Drug Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a366 Tyler BM, Grossman R, Patta Y, Upadhyay U, Huey L, Azadi J, Cima M, Brem H. Systemically Delivered Doxil Increases Survival in Both an Intracranial Gliosarcoma Model and an Intracranial Metastatic Breast Cancer Model in Rodents. Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a367 Tok S, Tyler BM, She AS, Robins N, Thomale UW, Jallo G. Local Delivery of Celengitide by Osmotic Pump Significantly Increases Survival in a Rat Brainstem Glioma Model. Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a368 Wicks RT, Masi B, Bow H, Tyler BM, Martin KL, Wicks EE, Cima C, Langer R, Brem H. Biocompatibility and Efficacy of Intracranial Microchip Delivery of Temozolomide in a Rat Model of Glioma. Discovery in Academia Conference, Baltimore, MD October 18, 2011.
- a369 Belcaid BZ, Phallen JA, Zeng J, See AP, Albesiano E, Durham NM, Tyler BM, Brem H, Pardoll DM, Drake C, Lim M. Stereotactic Radiosurgery Combined with Double Immunotherapy with anti-CTLA-4 and anti-4-1BB Yields Long-term Survival and Protective Antitumor Response in a Mouse Orthotopic Glioblastoma Model. Society for Neuro Oncology, Orange County, CA. November 2011.
- a370 Bow H, Salditch Q, Murray L, Xing J, Schildhaus N, Ye X, Zhang Y, Tyler BM, Brem H. Antiangiogenesis agent minocycline as adjuvant therapy to oral temozolomide and radiotherapy in intracranial 9L glioma. American Association of Neurological Surgeons, Miami, FL. April 14-19, 2012.
- a371 Bender M, Pradilla G, Wicks RT, Garzon_Muvdi T, Jarso S, Brayton C, Weingart J, Brem H, Tyler BM. Toxicity study of temozolomide polymers in cynomolgus monkeys. American Association of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a372 Wicks RT, Tyler BM, Zhang I, Azadi J, Hutt M, Xing J, Murray L, Bow H, Brem H. Controlled release of glioma metabolic inhibitors in combination with temozolomide and radiation therapy. American Association of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a373 Wicks RT, Martin K, Bender M, Morano L, Tok S, Yurter A, Brem H, Tyler B. Tolerability and efficacy of combined local, polymeric temozolomide delivery with systemic temozolomide in a rodent glioma model. American Association of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a374 Wicks RT, Tyler BM, Bow H, Schildhaus N, Salditch Q, Hutt M, Azadi J, Brem H. Combined Intracranial Delivery and Efficacy of 3-Bromopyruvate and Dichloroacetate. American Association of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a375 Wicks RT, Zhang K, Huang Y, Hutt M, Bow H, Ruzevick J, Kang J, Tyler BM, Jallo G, Brem H, Pradilla G. Optical coherence tomography (OCT) imaging of carotid artery calcifications in a murine model of atherosclerosis. American Association of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a376 Wicks RT, Zhang I, Tok S, Martin K, Upadhyay U, Patta Y, Yurter A, Brem H, Tyler BM. Combination therapy of doxil with temozolomide, radiation therapy, and BCNU in an experimental Glioma Model.

- a377 American Associaton of Neurological Surgeons. Miami, FL. April 14-19, 2012.
 Wicks RT, Masi B, Bow H, Tyler BM, Martin KL, Wicks EE, Cima C, Langer R, Brem H. Biocompatibility and Efficacy of Intracranial Microchip Delivery of Temozolomide in a Rat Model of Glioma. American Associaton of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a378 Wicks RT, Zhang K, Huang Y, Tyler BM, Brem H, Jallo G, Kang J, Pradilla G. Development and evaluation of a hand-held optical coherence tomography (OCT) imaging probe for intra-operative use at the skull base. American Associaton of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a379 Zeng J, See A, Phallen J, Belcaid Z, Durham N, Meyer C, Albesiano E, Pradilla G, Ford E, Hammers H, Tyler B, Brem H, Tran P, Pardoll D, Drake, C, Lim M. Combining Anti-PD-1 Immunotherapy with Stereotactic Radiosurgery in a Mouse Orthotopic Glioma Model. American Associaton of Neurological Surgeons. Miami, FL. April 14-19, 2012.
- a380 Bow H, Hwang Y, Salditch Q, Murray L, Xing J, Schildhaus N, Ye X, Zhang Y, Tyler BM, Brem H. Antiangiogenesis agent minocycline as adjuvant therapy to oral temozolomide and radiotherapy in intracranial 9L gliosarcoma. Congress of Neurological Surgeons, October 6-10, 2012. Chicago, IL.
- a381 Bow H, Masi B, Wicks RT, Hwang Y, Cima M, Langer R, Tyler BM, Brem H. Microchip-based intracranial temozolomide delivery in a 9L rat gliosarcoma model. Congress of Neurological Surgeons, October 6-10, 2012. Chicago, IL.
- a382 Gallia G, Tyler BM, Brem H. New Approaches to Treating Brain Tumors. 6th International Conference on Bioengineering and Nanotechnology. June 24th-27th, 2012. University of California, Berkley Campus.
- a383 Jin Y, Watson J, Polston C, Alsaeedi N, Trink E, Picker T, Curtis C, Velarde C, Brem H, Tyler BM. "Local Delivery 2-Deoxy-D-Glucose as a Possible Therapeutic Option: A Preclinical Study," 81st American Association of Neurological Surgeons Annual Scientific Meeting, New Orleans, Louisiana, April 27-May 1, 2013.
- a384 Watson J, Srivastava G, Bai R, Curtis C, Schildhaus N, Swedlow N, Taylor M, Trink E, Brem H, Riggins GJ, Tyler BM. "Efficacy of the Orally Delivered, Anti-Parasitic, Mebendazole, in an Intracranial Rodent Gliosarcoma Model," 81st American Association of Neurological Surgeons Annual Scientific Meeting, New Orleans, Louisiana, April 27-May 1, 2013.
- a385 Alsaeedi N, Srivastava G, Jin Y, Schildhaus N, Polston C, Picker T, Taylor M, Velarde C, Brem H, BM Tyler. "Efficacy of Locally Delivered Rapamycin in a Rodent Gliosarcoma Model," 81st American Association of Neurological Surgeons Annual Scientific Meeting, New Orleans, Louisiana, April 27-May 1, 2013.
- a386 Bydon M, Ma TM, Xu R, Macki M, Weingart J, Olivi A, Gokaslan ZL, Tamargo R, Brem H, Bydon A. Surgical Management of Craniocervical Junction Meningiomas: A Series of 22 Consecutive Patients. Congress of Neurological Surgeons 2013 Annual Meeting. San Francisco California, October 19 – 23, 2013
- a387 Huang J, Coon A, Lim M, Quinones-Hinojosa A, Weingart J, Colby G, Olivi A, Liauw J, Lina I, Brem H. Multidisciplinary Approach for Improved Outcomes in Secondary Cranial Reconstruction: Introducing the Pericranial-onlay Cranioplasty Technique. 82nd AANS Annual Scientific Meeting , San Francisco, April 5-9, 2014
- a388 A Mangraviti, N Abu-Bonsrah, M Seng, C Polston, T Raghavan, L Williams, D Schriefer, A Wu, D Coplon, H Brem, A Olivi, B Tyler. 2-Deoxy-D-Glucose -Induced Cytotoxicity in Malignant Glioma Cells. 2014 AANS Annual Scientific Meeting, April 5, 2014 – April 9, 2014 , San Francisco, CA.
- a389 A Mangraviti, Y Jin, M Seng, A Huang, G Hsu, J Wooley, M Pedone, I Paldor, C Velarde, A Olivi, H Brem, B Tyler. Dichloroacetate Acid Enhances the Antitumor Efficacy of Carboplatin in the F98 Glioma Model. 2014 AANS Annual Scientific Meeting, April 5, 2014 – April 9, 2014 , San Francisco, CA.
- a390 A Mangraviti, M Seng, N Abu-Bonsrah, T Raghavan, L Williams, C Polston, M Itzoe, D Schriefer, N Ram, H Brem, A Olivi, B Tyler. Local Delivery of 2-Deoxy-D-Glucose as a Possible Therapeutic Option to Increase the Efficacy of TMZ in Malignant Glioma: A Preclinical Study. 2014 AANS Annual Scientific Meeting, April 5, 2014 – April 9, 2014 , San Francisco, CA.
- a391 Iddo Paldor, Nicolas Bonne, Jaishri Blakeley, Marco Giovannini, Henry Brem and Betty M. Tyler. Nilotinib and lapatinib are effective for treatments of NF2 related schwannomas in the mouse xenograft model. 2014 NF Conference, June 7-10, 2014, Washington D.C.
- a392 Iddo Paldor, Nicolas Bonne, Antonella Mangraviti, Jaishri Blakeley, Marco Giovannini, Henry Brem and Betty M. Tyler. Nilotinib and lapatinib are effective for treatments of NF2 related schwannomas in the mouse xenograft model. 2014 Congress of Neurological Surgeons Annual Meeting, October 18-22, in Boston, Massachusetts.

- a393 Antonella Mangraviti, Sadhak Sengupta, Michael Seng, Leon Pinheiro, David Rowshanshad, Iddo Paldor, Betty Tyler, Prakash Sampath, Alessandro Olivi, Henry Brem. Assessment of IL13Ra2-dependent tumor aggression in an immunocompetent glioma animal model. 2014 Congress of Neurological Surgeons Annual Meeting, October 18-22, in Boston, Massachusetts.
- a394 Antonella Mangraviti, Yike Jin, Jay Sy, Yuan Wang, Tula Raghavan, Lindsey Hastings-Spaine, Alessandro Olivi, Betty Tyler Henry Brem. Efficacy of intracranial delivery of dichloroacetate and carboplatin via an lcp polymer microcapsule device in an experimental glioma model. 19th Annual Scientific Meeting of the Society for Neuro-Oncology, Miami, Florida, November 13-16, 2014.
- a395 Antonella Mangraviti, Sadhak Sengupta, Iddo Paldor, David Rowshanshad Prakash Sampath, Alessandro Olivi, Betty Tyler, and Henry Brem. Overexpression of IL13Ra2: assessment of pro-aggressive and pro-invasive phenotypes of malignant glioma in a syngeneic animal model. 19th Annual Scientific Meeting of the Society for Neuro-Oncology, Miami, Florida, November 13-16, 2014.
- a396 Antonella Mangraviti, Stephany Tzeng, Michael Seng, Sara Abbadi, Kristen Kozielski, Paula Schiapparelli, Olindi Wijesekera, Rachel Sarabia-Estrada, Henry Brem, Betty Tyler, Alessandro Olivi, Jordan Green, Alfredo Quinones-Hinojosa. BMP4-Secreting hAdMSCs Engineered With Nanoparticles: A Non-Viral MSC-Based Therapy For Glioblastoma. 19th Annual Scientific Meeting of the Society for Neuro-Oncology, Miami, Florida, November 13-16, 2014.
- a397 Dimitrios Mathios , Jillian Phallen, Chul-Kee Park ,1, Christopher Jackson, Sarah Nicholas, Betty Tyler, Drew Pardoll, Henry Brem, Michael Lim. PD-1 blockade shows synergistic survival, anti-tumor immune response and long-term memory with interstitial but not systemic chemotherapy: study in a murine glioblastoma model. 19th Annual Scientific Meeting of the Society for Neuro-Oncology, Miami, Florida, November 13-16, 2014.
- a398 Buaron N, Mangraviti A, Yuan Wang Y, Ann Liu A, Pedone, M Sankey E, Chintacunta R, Traitel T, Goldbart R, Brem H, Tyler B, Joseph Kost. In vivo Safety Study Assessing the Effect of Ultrasound and Modified Pectic Galactan/DNA Complexes as a New Approach for Treating Brain Cancer. AANS/CNS Section on Tumors, 11th Biennial Satellite Symposium, Washington D.C, May 1-2, 2015.
- a399 Mangraviti A, Raghavan T, Sankey E, Liu A, Wang Y, Schriefer D, Brem H, Olivi A, Tyler B. Acriflavine: A new HIF-1 Inhibitor for the Therapeutic Treatment of Malignant Glioma. AANS/CNS Section on Tumors 11th Biennial Satellite Symposium, Washington, D.C.on May 1-2, 2015.
- a400 Mangraviti A, Tzeng S, Kozielski K, Wang Y, Jin Y, Gullotti D, Pedone M, Buaron N, Liu A, Wilson D, Hansen S, Rodriguez F, Gao GD, DiMeco F, Brem H, Olivi A, Tyler B, Green J. Brain tumor non-viral gene therapy via polymeric nanoparticle extends survival in vivo. AANS/CNS Section on Tumors, 11th Biennial Satellite Symposium, Washington D.C., May 1-2, 2015.
- a401 Pinheiro L, Paldor I, Vigilar MV, Itzoe M, Rowshanshad D, Brem H, Tyler B. Captopril, an ACE Inhibitor, as an Effective Adjuvant Therapy with Temozolomide in an Intracranial Tumor Model. AANS/CNS Section on Tumors 11th Biennial Satellite Symposium, Washington, D.C.on May 1-2, 2015.
- a402 Paldor I, Pinheiro L, Vigilar MV, Itzoe M, Rowshanshad D, Brem H, Tyler B. Captopril, an ACE Inhibitor, as an Effective Adjuvant Therapy with Temozolomide in an Intracranial Tumor Model.The 14th Asian Australasian Congress of Neurological Surgeons, Jeju Island, Korea, 15 - 18 April 2015.
- a403 Mathios D, Hwang T, Phallen J, Bettegowda C, Ha P, Burger P, Brem H, McDonald K, Park CK, Lim M. Investigation of epigenetic based inter-tumoral heterogeneity identifies novel ZMIZ1 gene as a biomarker of cancer patient survival in multiple tumor types. AACR 106th Annual Meeting, Philadelphia, PA ; April 18-22, 2015.
- a404 Sankey EW, Lopez J, Zhong S, Jusue-Torres I, Liauw J, Huang J, Brem H, Gordon C. Perioperative Anticoagulation Increases the Risk of Complications after Cranioplasty. Plastic & Reconstructive Surgery: May 2015 - Volume 135 - Issue 5S - p 36-37
- a405 Kim JE, Patel MA, Mangraviti A, Velarde E, Theodros D, Mathios D, Jackson CM, Tyler B, Ye X, Brem H, Pardoll D, Lim M. The Combination of anti-TIM-3 and anti-PD-1 Checkpoint Inhibitors With Focused Radiation Resulted in a Synergistic Antitumor Immune Response in a Preclinical Glioma Model. Neurosurgery. 2015 Aug;62 Suppl 1, CNS Oral Presentation:212.
- a406 Jackson S, Anders N, Mangravitti A, Brem H, Tyler B, Rudek M, Grossman S. TR-09 The effect of regadenoson-induced transient disruption of the blood brain barrier on temozolomide delivery to rat brain parenchyma. Society of NeuroOncology, San Antonio TX Nov 19-22, 2015; 17(3).
- a407 Lopez J, Zhong S, Sankey EW, Swanson EW, Susarla H, Torres I, Huang J, Brem H, Auwaerter P, Gordon C. Time Interval Reduction for Delayed Implant-Based Cranial Reconstruction in the Setting of Previous Bone

- Flap Osteomyelitis. Podium Presentation, The 95th Annual Northeastern Society of Plastic Surgery (NESPS) Annual Meeting, Philadelphia, PA. September 17-20, 2015.
- a408 Lopez J, Zhong S, Sankey EW, Swanson EW, Susarla H, Jusué-Torres I, Huang J, Brem H, Auwaerter PG, Gordon CR. Time Interval Reduction for Delayed Implant-based Cranioplasty Reconstruction in the Setting of Previous Bone Flap Osteomyelitis. Podium Presentation, 16th Congress of International Society of Craniofacial Surgery. Tokyo, Japan. September 14-18, 2015.
- a409 Lopez J, Zhong S, Sankey EW, Swanson EW, Susarla H, , Gordon CR, Huang J, Brem H, Auwaerter PG. Time Interval Reduction for Delayed Implant-based Cranioplasty in the Setting of Previous Bone Flap Osteomyelitis. Podium Presentation during the PSRC General Sessions at the AAPS and PSRC Joint Annual Meeting being held May 19-22, 2016 at the Sheraton Hotel & Towers in New York City.
- a410 Antonella Mangraviti, Tula Raghavan, Francesco Volpin, Nicolas Skuli, Jinyuan Zhou, Charles Eberhart, Eric Sankey, Ann Liu, Henry Brem, Alessandro Olivi, and Betty Tyler. Efficacy of a small-molecule inhibitor of hypoxia inducible factor-1: novel approach for brain tumor therapy. 84th AANS Annual Scientific Meeting, Chicago, Illinois April 30th-May 4th, 2016.
- a411 Antonella Mangraviti, Jaepyeong Cha, Francesco Volpin, Samantha Scott, Karan Raje, Betty M. Tyler, Abhishek Rege, and Judy Huang. Real-time blood flow monitoring during preclinical surgery using a novel, speckle-based imaging system. 84th AANS Annual Scientific Meeting, Chicago, Illinois April 30th-May 4th, 2016.
- a412 Antonella Mangraviti, Stephany Tzeng, David Gullotti , Kristen Kozielski, Rachel Sarabia-Estrada, Henry Brem, Betty Tyler, Alessandro Olivi, Jordan Green, Alfredo Quinones-Hinojosa. Brain Tumor Gene Delivery via Non-Viral Engineered Adipose Mesenchymal Stem Cells Extend Survival In Vivo. Podium Presentation, 84th AANS Annual Scientific Meeting, Chicago, Illinois April 30th-May 4th, 2016.
- a413 Joshua Casaos, Francesco Volpin, Antonella Mangraviti, Tarik Lott, Raphael Felder, Shazia Dharssi, Mitchell Rock, Henry Brem, Betty Tyler, Nicolas Skuli. Use of an anti-viral drug, Ribavirin, as an anti-glioblastoma therapeutic. 84th AANS Annual Scientific Meeting, Chicago, Illinois April 30th-May 4th, 2016.
- a414 Sarah Nicholas, MD, Roberto Salvatori, MD, Daniele Rigamonte, MD, Henry Brem, Kristen Redmond, MD, Alfredo Quinones-Hinojosa, MD, Gary Gallia MD PhD, Michael Lim MD, Lawrence Kleinberg MD. Deferred Radiotherapy after debulking of non-functioning Pituitary Macroadenomas: An appropriate option. 2016 ASTRO Meeting, Boston MA September 25th-28th, 2016.
- a415 Casaos J, Huq S, Choi J, Gorelick N, Peters M, Xia Y, Ji C, Jackson EM, Brem H, Tyler B, Skuli N. Ribavirin as a Potential Therapeutic for Atypical Teratoid/Rhabdoid Tumors. 12th Annual Johns Hopkins Bayview Research Symposium, Baltimore, MD. 2017.
- a416 Casaos J, Huq S, Choi J, Gorelick N, Xia Y, Ji C, Jackson EM, Brem H, Tyler B, Skuli N. Ribavirin as a Potential Therapeutic for Atypical Teratoid/Rhabdoid Tumors. 86th AANS Annual Scientific Meeting. New Orleans, LA. 2018.
- a417 Casaos J, Huq S, Peters M, Gorelick N, Serra R, Xia Y, Choi J, Ji C, Jackson EM, Brem H, Tyler B, Skuli N. Ribavirin as a Potential Therapeutic for Atypical Teratoid/Rhabdoid Tumors. Young Investigators Day Program (Paul Ehrlich Award), April 17, 2018.
- a418 Huq S, Casaos J, Gorelick N, Monroe A, Fodor R, Leninkannan M, Doglioli M, Tagliaferri V, Brem H, Skuli N, Tyler B. Local Delivery of Ribavirin as a Promising Therapeutic Option for Glioblastoma. American Association of Neurological Surgeons Annual Scientific Meeting. 2018.
- a419 Huq S, Casaos J, Gorelick N, Monroe A, Fodor R, Leninkannan M, Doglioli M, Tagliaferri V, Brem H, Skuli N, Tyler B. Local Delivery of Ribavirin as a Promising Therapeutic Option for Glioblastoma. 12th Annual Johns Hopkins Bayview Research Symposium, Baltimore, MD. 2017.
- a420 Huq S, Casaos J, Gorelick N, Brem H, Skuli N, Tyler B. Ribavirin as an Anti-tumor Agent Against Adult Glioblastoma and Pediatric Atypical Teratoid Rhabdoid Tumor. Podium Presentation (Henry Strong Dennison Outstanding Student Research Award), Johns Hopkins Medical Student Research Symposium. 2018.
- a421 Mitchell KA, Shay T, Huang J, Brem H, Manson P, Gordon CR. The Neuroplastic Surgery Fellowship Experience: Where Tradition Meets Innovation. J Craniofac Surg 2020. Oct 29.
- a422 Sahu M, et al. Brem H. Evaluating Feasibility of a Cooperative-Control Robotic Assistant for Endoscopic Endonasal Sinus Surgery: A Pre-Clinical Study. 2023 ARS @ Combined Otolaryngology Spring Meeting, Boston MM May 3-7, 2023.

