



CURRICULUM VITAE
HENRY BREM, M.D.
April, 2009

DEMOGRAPHIC INFORMATION

Current Appointments:

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

Personal Data:

CLINICAL AND ADMINISTRATIVE OFFICE:

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RESEARCH OFFICE

Johns Hopkins University School of Medicine
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Date of Birth: August 14, 1952 Paterson, New Jersey

Marital Status: Married to Rachel Frydman Brem, M.D.
Children: Andrea Marin (7/16/83), Alisa
(9/23/86) and Sarah (9/23/86)

Education and Training (in chronological order): (degree/yr/institution/discipline)

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)
	1999, Feb.	Harvard School of Public Health: Program for Chiefs of Clinical Service
	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

Professional Experience (in chronological order): (positions/institutions/dates)

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 - Present
Associate Professor of Neurosurgery Johns Hopkins University.	1988 - 1993
Associate Professor of Oncology, Johns Hopkins University	1989 - 1993
Director, Hunterian Neurosurgical Research Center	1991 - Present
Professor, Neurosurgery, Ophthalmology, and Oncology, Johns Hopkins University	1993 - Present
Vice Chairman, Dept of Neurosurgery, Johns Hopkins University	1995 - 2000
Harvey Cushing Professor	2000 - Present
Chairman, Department of Neurosurgery, Johns Hopkins University	2000 - Present
Neurosurgeon-in-Chief, Johns Hopkins Medical Institutions	2000 - Present

RESEARCH ACTIVITIESPeer-Reviewed Articles:

1. Brem H, Coward JE, and Rosenkranz HS. "1,2-Dibromoethane effect on the metabolism and ultrastructure of *Escherichia coli*." Biochemical Pharmacology 23:2345-2347, 1974.
2. Brem H, Stein AB, and Rosenkranz HS. "The mutagenicity and DNA-modifying effect of haloalkanes." Cancer Research 34:2576-2579, 1974.
3. Brem H and Folkman J. "Inhibition of tumor angiogenesis mediated by cartilage." The Journal of Experimental Medicine 141:427-439, 1975.
4. Langer R, Brem H, Falterman K, Klein M, and Folkman J. "Isolation of a cartilage factor that inhibits tumor angiogenesis." Science 193:70-72, 1976.
5. Brem S, Brem H, Folkman J, Finkelstein D, and Patz A. "Prolonged tumor dormancy by prevention of neovascularization in the vitreous." Cancer Research, 36:2807-2812, 1976.
6. Brem S, Preis I, Langer R, Brem H, Folkman J, and Patz A. "Inhibition of neovascularization by an extract derived from vitreous." Am J of Ophthalmology, 84(3):323-328, 1977.
7. Brem H, Thompson D, Long D, and Patz A. "Human brain tumors: Differences in ability to stimulate angiogenesis." Surgical Forum, 31, 471-473, 1980.
8. Langer R, Brem H, and Tapper D. "Biocompatibility of polymeric delivery systems for macromolecules." Journal of Biomedical Materials Research 15:267-277, 1981.

9. Friedman JH, Brem H, and Mayeux R. "Global aphasia in multiple sclerosis." Annals of Neurology, 13:222-223, 1983.
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, 34:532-534, 1983.
11. Brem H and Stein BMS. "Posterior surgical approach to the third ventricle and pineal region." Contemporary Neurosurgery, 7:1-6, 1985.
12. Zinreich SJ, Wang H, Epstein JI, Kim WS, Brem H, Anderson, JH, Ahn HS, and Rosenbaum AE. "Carotid bifurcation imaging model for more accurately comparing imaging techniques." Acta Radiologica, 369:24-28, 1986.
13. Robey SS, Olson JL, Brem H, and Epstein JI. "Posterior fossa neuroblastoma in an elderly man." Journal of Human Pathology, 19:365-367, 1988.
14. Steen RG, Tamargo RJ, McGovern KA, Rajan SS, Brem H, Wehrle JP, and Glickson JD. "In vivo ³¹P NMR spectroscopy of subcutaneous 9L gliosarcoma: Effects of tumor growth and BCNU treatment on tumor bioenergetics and histology." Cancer Research, 48:676-681, 1988.
15. Tamargo RJ, Epstein J, and Brem H. "Heterotransplantation of malignant human gliomas in neonatal rats." Journal of Neurosurgery, 69:928-933, 1988.
16. Tamargo RJ, Epstein JI, Reinhard CS, Chasin M, and Brem H. "Brain biocompatibility of a biodegradable controlled release polymer in rats." Journal of Biomedical Materials Research, 23(2):253-266, 1989.
17. Brem H, Kader A, Epstein JI, Tamargo R, Domb A, Langer R, and Leong, K. "Biocompatibility of a biodegradable, controlled- release polymers in the rabbit brain." Selective Cancer Therapeutics, 5(2):55-65, 1989.
18. Yang MB, Tamargo RJ, and Brem H. "Controlled delivery of 1,3-Bis(2-chloroethyl)-1-nitrosourea from ethylene-vinyl acetate copolymer. Cancer Research, 49(18):5103-5107, 1989.
19. Salibi SS, Nauta HJW, Brem H, Epstein JI, and Cho K. "Lipomeningioma: Report of three cases and review of literature." Neurosurgery, 25:122-126, 1989.
20. Langer RS, Brem H, and Langer L. "New Directions in CNS Drug Delivery". Neurobiology of Aging, 10(5):642-644, 1989.
21. Steen RG, Tamargo RJ, Brem H, Glickson JD, and Wehrle JP. "In vivo ³¹P nuclear magnetic resonance spectroscopy of rat 9L gliosarcoma treated with BCNU: Dose-response of spectral changes." Magnetic Resonance in Medicine, 11:258-266, 1989.
22. Levy AP, Tamargo R, Brem H, and Nathans D. "An Endothelial cell growth factor from the mouse neuroblastoma cell line NB41." Growth Factors, 2:9-19, 1989.
23. Carson B and Brem H. "Neurological surgery." JAMA, 263:2658-2659, 1990.
24. Brem H. "Modern treatment of brain tumors." Maryland Medical Journal, 39:351-354, 1990.
25. Brem H. "Controlled-release polymer systems for drug delivery to the brain." Polymer Preprints, 31:229, 1990.

26. Tamargo RJ, Leong KW, and Brem H. "Growth inhibition of the 9L glioma using polymers to release heparin and cortisone acetate." J Neuro-Onc, 9:131-138, 1990.
27. Guerin C, Lattera J, Hruban RH, Brem H, Drewes LR, and Goldstein GW. "The glucose transporter and blood-brain barrier of human brain tumors." Annals of Neurology, 28:758-765, 1990
28. Sills AK, Tamargo RJ, and Brem H. "Reduction in peritumoral brain edema by an intracranial polymer implant." Surgical Forum, 41:516-518, 1990.
29. Brem H. "Polymers to treat brain tumors." Biomaterials, 11:699-701, 1990.
30. Chasin M, Hollenbeck G, Brem H, Grossman S, Colvin OM, and Langer R. "Interstitial drug therapy for brain tumors: A case study." Drug Development and Industrial Pharmacy, 16(18):2579-2594, 1990.
31. Langer LF, Brem H, and Langer R. "New technologies for fighting brain disease." Technology Review, Feb/Mar:63-71, 1991.
32. Tamargo R, Bok RA, and Brem H. "Angiogenesis inhibition by minocycline." Cancer Research, 51:672-675, 1991.
33. Dugan JD, Jr., Lawton MT, Glaser B, and Brem H. "A new technique for explantation and in vitro cultivation of chicken embryos." Anatomical Record, 229:125-128, 1991.
34. Brem H, Mahaley MS, Vick NA, Black K, Schold SC, Burger PC, Friedman AH, Ciric IS, Eller TW, Cozzens JW, and Kenealy JN. "Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas." J Neurosurgery, 74:441-446, 1991.
35. Capito PR, Wang H, Brem H, Ahn HS, and Bryan RN. "MR diagnosis of an intracranial metastasis of adenocarcinoma of prostate: case report." Maryland Medical J, 50(2):113-115, 1991.
36. Olivi A, Donehower R, Mann R, and Brem H. "Solitary, isolated metastasis from Ewing's sarcoma to the brain: Case report." Surgical Neurology, 35:239-243, 1991.
37. Tamargo RJ, Sills AK, Reinhard CS, Pinn ML, Long DM, and Brem H. "Interstitial delivery of dexamethasone in the brain for the reduction of peritumoral edema." J Neurosurgery, 74:956-961, 1991.
38. Reinhard CS, Radomsky M, Saltzman M, and Brem H. "Polymeric controlled release of dexamethasone in normal rat brain." J Controlled Release, 16(3):331-340, 1991.
39. Madrid Y, Langer LF, Brem H, and Langer R. "New directions in the delivery of drugs and other substances to the central nervous system." Advances in Pharmacology, 22:299-324 1991.
40. Nabors MW, Griffin CA, Zehnbauer BA, Hruban RH, Phillips PC, Grossman SA, Brem H, and Colvin OM. "MDR1 gene expression in human brain tumors." J of Neurosurgery, 75:941-946, 1991.
41. Domb A, Bogdansky S, Olivi A, Judy K, Dureza C, Lenartz D, Pinn ML, Colvin OM, and Brem H. "Controlled delivery of water soluble and hydrolytically unstable anti-cancer drugs for polymeric implants." Polymer Preprints, 32(2):219-220, 1991.
42. Weingart J, Olivi A, and Brem H. "Supratentorial low-grade astrocytomas in adults." Neurosurgery Quarterly, 1:141-159, 1991.
43. Guerin C, Lattera J, Drewes LR, Brem H, and Goldstein GW. "Vascular expression of glucose transporter in experimental brain neoplasms." American Journal of Pathology, 140(2):417-425, 1992.

44. Guerin C, Wolff J, Laterra J, Drewes LR, Brem H, and Goldstein GW. "Vascular differentiation and glucose transporter expression in 9L gliomas: effects of steroids." Annals of Neurology, 31:481-487, 1992.
45. Brem H, Domb A, Lenartz D, Dureza C, Olivi A, and 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, 19:325-330, 1992.
46. Grossman S, Reinhard C, Colvin OM, Chasin M, Brundrett R, Tamargo RJ, and Brem H. "The intracerebral distribution of 1,3-Bis(2-chloroethyl)-1-nitrosourea (BCNU) delivery by surgically implanted biodegradable polymers." J of Neurosurgery, 76:640-647, 1992.
47. Griffin CA, Long PP, Carson BS, Brem H. "Chromosome abnormalities in low-grade central nervous system tumors." Cancer Genet Cytogenet, 60:67-73, 1992.
48. Phillips SD, Corio RL, Brem H, and Mattox D. "Ameloblastoma of the mandible with intracranial metastasis: A case study." Archives of Otolaryngology-Head and Neck Surgery, 118:861-863, 1992.
49. Brem H. "Controlled release polymers to deliver drugs to the brain." Polym. Mater. Sci. Eng., 66:85, 1992.
50. Guerin C, Laterra J, Masnyk T, Golub LM, Brem H. "Selective endothelial growth inhibition by tetracyclines that inhibit collagenase." Biochemical and Biophysical Research Communications, 188(2):740-745, 1992.
51. Buahin KG, Judy KD, Hartke C, Maniar M, Colvin OM, Brem H. "Controlled release of 4-hydroperoxycyclophosphamide from the fatty acid dimer-sebacic acid copolymer." Polymers For Advanced Technologies, 3(6):311-316, 1992.
52. Tamargo RJ, Brem H. "Drug delivery to the central nervous system: A review." Neurosurgery Quarterly, 2(4):259-279, 1992.
53. Weingart J and Brem H. "Biology and therapy of glial tumors." Current Opinion in Neurology and Neurosurgery, 5:808-812, 1992.
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, 53:329-333, 1993.
55. Weingart J, Brem H. "Current management of high-grade gliomas." Contemporary Oncology, 3(2):19-31, 1993
56. Brem H, Walter, KA, Langer R. "Polymers as controlled drug delivery devices for the treatment of malignant brain tumors." Eur. J. Pharm. & Biopharm, 39(1):2-7, 1993.
57. Olivi A, Gilbert M, Duncan KL, Corden B, Lenartz D, and Brem H. "Direct delivery of platinum based antineoplastics to be central nervous system: A toxicity and ultrastructural study." Cancer Chemotherapy and Pharmacology, 31:449-454, 1993.
58. Wolff JEA, Guerin C, Laterra J, Bressler J, Indurtti RR, Brem H, Goldstein GW. "Dexamethasone reduces vascular density and plasminogen activator activity in 9L rat brain tumors." Brain Research, 604:79-85, 1993.

59. Zinreich SA, Tebo S, Long DM, Brem H, Mattox DE, Loury ME, Vander Kolk CA, Koch WM, Kennedy DW, Bryan RN. "Frameless stereotactic integration of CT imaging data: Accuracy and initial applications." Radiology, 188(3):735-742, 1993.
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 13:163-168, 1993.
61. Brem H, Tamargo RJ, Olivi A, Pinn ML, Weingart JD, Wharam M, Epstein JI: "Biodegradable polymers for controlled delivery of chemotherapy with and without radiation therapy in the monkey brain." Journal of Neurosurgery, 80:283-290, 1994.
62. Phillips PC, Levow C, Catterall M, Colvin OM, Pastan I, Brem H. "Transforming growth factor - pseudomonas exotoxin fusion protein (TGF-PE38) treatment of subcutaneous and intracranial human medulloblastoma and glioma xenografts in athymic mice." Cancer Research, 54(4):1008-1015, 1994.
63. Wu MP, Tamada JA, Brem H, Langer R. "In vivo versus in vitro degradation of controlled release polymers for intracranial therapy." J of Biomed Mat Res, 28:387-395, 1994.
64. Cahan MA, Walter KA, Colvin OM, Brem H. "The cytotoxicity of taxol in vitro against human and rat malignant brain tumors." Cancer, Chemotherapy, and Pharmacology, 33:441-444, 1994.
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 Research, 54:2207-2212, 1994.
66. Arosarena O, Guerin C, Brem H, J Laterra. "Endothelial differentiation in intracerebral and subcutaneous experimental gliomas." Brain Research, 640:98-104, 1994.
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 Research, 54:1729-1736, 1994.
68. Tapper D, Cahan MA, Brem H. "Detection of biological activity in the cerebrospinal fluid of patients with central nervous system tumors." J of Neuro-Oncology, 19:17-23, 1994.
69. Sipos EP, Tamargo RJ, Weingart JD, Brem H. "Inhibition of tumor angiogenesis." The Annals of the New York Academy of Sciences, 732:263-274, 1994.
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 Genetics and Cytogenetics, 78:46-52, 1994.
71. Judy K, 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 Neurosurgery, 82:103-108, 1995.
72. Weingart JD, Sipos EP, Brem H. "The role of minocycline in treatment of 9L glioma." J Neurosurgery, 82:635-640, 1995.
73. Brem H, Piantadosi S, Burger PC, Walker M, Selker R, Vick NA, Black K, Sisti M, Brem S, Mohr G, Muller P, Morawetz R, Schold SC., and the Polymer-Brain Tumor Group. "Placebo-controlled trial of safety and efficacy of intraoperative controlled delivery by biodegradable polymers of chemotherapy for recurrent gliomas" The Lancet, 345:1008-1012, 1995.

74. Pressman EV, Zeidman SM, Reddy UM, Epstein JI, Brem H. "Differentiating lymphocytic adenohypophysitis from pituitary adenoma in the peripartum patient. Journal of Reproductive Medicine, 40:251-259, 1995.
75. Weingart JD, Thompson RC, Tyler B, Colvin OM, Brem H. "Local delivery of the topoisomerase I inhibitor camptothecin prolongs survival in the rat intracranial 9L gliosarcoma model." International Journal of Cancer, 62:605-609, 1995.
76. Sipos EP, Brem H. "New delivery systems for brain tumor therapy." Neurologic Clinics, 13(4):813-825, 1995.
77. Walter KA, Tamargo RJ, Olivi A, Burger PC, Brem H. "Intratumoral chemotherapy. Neurosurgery, 37:1129-1145, 1995.
78. Buahin KG, Brem H. "Interstitial chemotherapy of experimental brain tumors: Comparison of intratumoral injection versus polymeric controlled release." Journal of Neuro-Oncology, 26(2):103-110, 1995.
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." Journal of Neuro-Oncology, 26(2):111-123, 1995.
80. Brem H, Langer R. "Polymer-based drug delivery to the brain." Scientific American: Science & Medicine Vol 3:52-61, 1996.
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." Pharmaceutical Research, 13(5):671-682, 1996.
82. Dang W, Daviau T, Brem H. "Morphological characterization of polyanhydride biodegradable implant Gliadel^R during in vitro and in vivo erosion using scanning electron microscopy." Pharmaceutical Research, 13(5):683-691, 1996.
83. Sipos EP, Tebo SA, Zinreich SJ, Long DM, Brem H. "In vivo accuracy testing and clinical experience with the ISG viewing wand." Neurosurgery, 39:194-204 1996.
84. Dang W, Daviau T, Ying P, Zhao Y, Nowotnik D, Clow C, Tyler B, Brem H. "The effects of GLIADEL^R wafer initial molecular weight on the erosion of wafer and release of BCNU." Journal of Controlled Release, 42:83-92, 1996.
85. Weingart JD, Brem H. "Carmustine implants: Potential in the treatment of brain tumours." CNS Drugs,(4):263-269, 1996.
86. 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, Vol:XLVII, 564-566, 1996.
87. Ewend MG, Carey LA, Brem, H. "Treatment of melanoma metastases in the brain." Seminars in Surgical Oncology, 12:429-435, 1996.
88. Ewend MG, Williams J, 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 Research,56:5217-5223, 1996.

89. 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 Chemotherapy & Pharmacology,39:90-96, 1996.
90. Thompson RC, Pardoll DM, Jaffee EM, Ewend MG, Thomas MC, Tyler BM, Brem H. "Systemic and local paracrine cytokine therapies utilizing transduced tumor cells are synergistic in treating brain tumors." Journal of Immunotherapy, 19(6):405-413, 1996.
91. Utsuki T, Brem H, Pitha J, Loftsson T, Kristmundsdottir T, Tyler BM, Olivi A. "Potentiation of anticancer effects of microencapsulated carboplatin by hydroxypropyl -cyclodextrin." Journal of Controlled Release, 40:251-260, 1996.
92. 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 Chemotherapy & Pharmacology, 39(5):383-389, 1997.
93. Williams JA, Dillehay LE, Tabassi K, Sipos E, Fahlman C, Brem H. "Implantable biodegradable polymers for IUDR radiosensitization of experimental human malignant glioma, Journal of Neuro-Oncology, 32:181-192, 1997.
94. Sampath P, Holliday MJ, Brem H, Niparko JK, Long DM. "Facial nerve injury in acoustic neuroma (vestibular schwannoma) surgery: etiology and prevention." J Neurosurgery 87:60-66, 1997 and Neurosurgery Focus 5(3):Article 4, 1998..
95. Kleinberg L, Slick T, Enger C, Grossman S, Brem H, Wharam MD. "Short course radiotherapy is an appropriate option for most malignant glioma patients." Int'l J. of Rad Oncol, Biol.& Physics, 38(1):31-36, 1997.
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97. Bohan E, Brem H. "Treatment of brain tumors by local delivery of chemotherapy via biodegradable polymers." Hospital Pharmacist Report, Dec:12-18, 1997.
98. Fung LK, Ewend M, 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 Research, 58:672-684, 1998.
99. 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." Radiation Oncology Investigations, 6:63-70, 1998.
100. Grossman S, Fisher J, Piantadosi S, Brem H. "The new approaches to brain tumor therapy (NABTT) CNS Consortium: organization, objectives, and activities." Cancer Control, 5(2):107-114, 1998.
101. Sampath P, Brem H. "Implantable slow-release chemotherapeutic polymers for the treatment of malignant brain tumors." Cancer Control, 5(2):130-137, 1998.
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104. Posner GH, Lee JK, Wang Q, Peleg S, Burke MD, Brem H, Dolan P, Kensler TW. "Noncalcemic, antiproliferative, transcriptionally-active, 24-fluorinated hybrid analogues of the hormone 1,25-Dihydroxyvitamin D₃, Synthesis and preliminary biological evaluation. Journal of Medicinal Chemistry, 41(16):3008-3014, 1998.
105. Ewend MG, Sampath P, Williams JW, Tyler BM, Brem H. "Local delivery of chemotherapy prolongs survival in experimental brain metastases from breast carcinoma." Neurosurgery,43(5):1185-1193, 1998.
106. Sampath P, Rhines LD, Holliday MJ, Brem H, Dong DM. "Late-onset facial nerve degeneration after vestibular schwannoma surgery: incidence, putative mechanisms, and prevention. Neurosurgical Focus, 5(3)Article 6, 1998.
107. Chou D, Sampath P, Brem H. "Hemorrhagic vestibular schwannoma: an unusual clinical entity." Neurosurgical Focus, 5(3):Article 9, 1998.
108. 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. Radiation Oncology Biol Phys,42(3):631-639, 1998.
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114. Sampath P, Long DM, Brem H. "The Hunterian Surgical Laboratory: The first 100 years of neurosurgical research." Neurosurgery, 46(1):184-195, 2000.
115. DiMeco F, Rhines LD, Hanes J, Tyler BM, Brat D, Torchiana E, Michael Guarnieri, Colombo MP, Pardoll DM, Finocchiaro G, Brem H, Olivi A. "Paracrine delivery of IL-12 against intracranial 9L gliosarcoma in rats." J Neurosurg, 92:419-427, 2000.
116. Haroun RI, Lee KW, Carson BS, Brem H. "Primary tumors of the choroids plexus." Contemporary Neurosurgery,22(3)Feb, 2000.

117. Haroun R, Brem H. "Local drug delivery." Current Opinions in Oncology Vol. 12(3):187-193, 2000.
118. Klink DF, Sampath P, Miller NR, Brem H, Long DM. "Long-term visual outcome after non-radical microsurgery in patients with parasellar and cavernous sinus meningiomas." Neurosurgery, 47(1):24-32, 2000.
119. 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 which extends outside the central nervous system." Journal of Immunotherapy,23(4):438-448, 2000.
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121. Sipos EP, Brem H. "Local anti-angiogenic brain tumor therapies." Journal of Neuro-Onc,50(1-2): 181-188, 2000.
122. 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: Trends in Experimental and Clinical Medicine,10(2):152-165, 2000.
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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.
- 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), in press. 2008

Books:

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

Inventions, Patents, Copyrights (pending, awarded)

Patents:

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

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:
(Pending)

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 (Pending) - May 1996

Controlled Release Vitamin D₃ Derivative Formulations for Treatment of Cancer.
 Martin Burke, Maria-Christina White, Jae Kyoo Lee, Mark C. Watts, Betty M. Tyler, Gary H. Posner, Henry Brem
 HB 101 - 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 (Pending)

Extramural Sponsorships (current, pending, previous):

GRANTS – Current:

1987 - 2013	"Research Training in Neuro-Oncology" NIH/NCI National Research Service Award, T32 CA09574 Total Project DC: \$1,318,370 (5 yr) Current DC: \$257,544 (yr 21 DC) Role: Co-P.I. Effort 1% P.I.: Stuart Grossman
2008 – 2010	"Enhancement of Brain Tumor Immunotherapy by Fas-L RNAi" NIH 1 R21 CA112148 Total DC: \$500,000 Current DC: \$250,000 Role: Co-investigator Effort 2% P.I.: Alessandro Olivi
05/01/06 – 04/30/11	"Regional Oncology Research Center Grant" NCI 5P30CA06973-44 Total DC:?? \$3,848,362 Initial yr DC \$ 4,775,210 (yr. 45 DC) Role: Co-investigator Effort 3% P.I. Stephen Baylin
8/01/07-7/31/2012	NIH 9 RO1 EB006365-06 (Formerly RO1A1047739-06) (MIT,Robert Langer). "Microchip Drug Delivery System" Total Project (JHU) Direct Cost: \$414,636 \$60,976 (yr 1. DC) Role: (Subcontract, Brem, P.I.) Effort: 0.6 CM (5%) P.I., MIT – Robert Langer
7/1/08 – 6/30/13	NIH T32CA130840-01 (Denis Wirtz, P.I.) "Postdoctoral Training Program in Nanotechnology for Cancer Medicine" Total Project- Total Cost: \$1,355,044 \$104,446 (dc yr-1) Role: Participating Faculty Effort 0% P.I. Denis Wirtz
5/1/04-4/30/2010	NIH 5T32EB003383-05 "Training Program in Neuroengineering" Total Project Total Cost \$1,795,052 \$18,746 (dc-yr 5) Role: Participating Faculty Effort 0% P.I. Nitish Thakor

GRANTS – previous:

9/19/90-4/30/95 (1 st cycle)	"Controlled Release Polymers for Brain Tumors" NCI/NCDDG 2 U19 CA52857 TDC: \$4,126,592 Role: P.I. Effort 19%
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9/19/95-4/30/00
(2nd cycle) "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
(3rd cycle) "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
(1st 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
(2nd 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
(3rd cycle) "New Approaches to Brain Tumor Therapy CNS Consortium"
NIH, NCI, UO1 CA62474
Total Project DC: \$483,133 Current DC: \$92,987
Role: P.I. Effort 5%

3/21/94 – 12/31/97
(1st 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
(2nd 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
(3rd cycle) "New Approaches to Brain Tumor Therapy CNS Consortium,"
NIH, NCI, UO1 CA62475
Total Project DC: \$2,573,487 Current DC: \$484,728
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)

5/1/05 – 4/30/07
(1st cycle) "Enhancement of Brain Tumor Immunotherapy by Fas-L RNAi"
NIH 1 R21 CA112148
Total DC: \$200,000 Current DC: \$150,000
Role: Co-investigator Effort 2% P.I.: Alessandro Olivi

CONTRACT – Current: - None

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 models"
Fidia Research Laboratories, Terme, Italy.
DC: \$72,646 Effort 2% Role: P.I.
- 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)
- 2004-2005
CytoDome, Inc
Project 1; "Ultrasound Delivery System with Systemic BCNU in the 9L Rat Flank Model" 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
Role: P.I. Effort 1%
- 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 Current DC: \$33,333
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
D.C. \$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
Total Project D.C.: \$18,146 Effort 1% (no sal) Role: P.I.: Brem

4/1/07-11/30/08 "Safety and Efficacy Studies Using Zymes Compound in an Experimental Intracranial Rodent Glioma."
Zymes, LLC. \$17,246 dc
 Role: Consultant (Effort 0/0) P.I.: B. Tyler

OTHER – Current:

7/1/08 – 6/30/2012 "Efficacy of Temozolomide for the Treatment of Malignant Glioma"
American Cancer Society
 Total Project D.C.: \$589,313 Current DC: \$132,508
 Role: Co-Investigator Effort 1% P.I.: Betty Tyler

Other – Previous:

1983 - 1985 "Detection of Human Central Nervous System Tumors" PDT-228
American Cancer Society Grant

1984 – 1985 "Inhibition of Brain Tumor Angiogenesis"
American Cancer Society Institutional Grant

1985 – 1990 "Inhibition of Brain Tumor Angiogenesis" Total Period: 12/1/87 – 11/30/90
NCI, Clinical Investigator Development Award, 5 KO8-NS01058
 DC: \$289,440 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 Total Period: 1/1/03 – 12/31/03
 DC: \$50,000 Effort: Role: P.I.

2003-2004 "Haptoglobin and Tumor Angiogenesis"
Technion Foundation Award; Joint JHU-Technion Program for Biomedical Sciences
 and Biomedical Engineering Total Period: 1/1/03 - 12/31/04
 JHU DC: \$66,666
 Role: Co-P.I. 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

EDUCATIONAL ACTIVITIES

Teaching:

- . Classroom instruction (course title, dates, role)
- . Clinical instruction (service, dates, role)
- . CME instruction (course title, dates, role)

Mentoring: (pre- and post-doctoral)

Advisees : (provide: name, dates, degree, present position, and awards/grants/degrees received under your direction)

Thesis committees: (provide: names, title, dates, your role)

Training grant participation: (provide: program name, dates, your role)

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

(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 treatment of spine tumors"

NCI NRSA, 5 T32 CA09630-14 (P.I: Z. Bhujwalla) 8/1/89-12/31/03
"Research Training in Oncology Imaging" Role: Faculty

NCI 2 T32-HL07712-11 (P.I. Paul Bottomley) 7/1/92-6/30/05
"Research Training in Interventional Radiology" Role: Faculty

NCI 5P30CA06973-45 (P.I.: Stephen Baylin) 05/01/06 – 04/30/11
"Regional Oncology Research Center Grant" Role: Program leader

NCI (P.I.Nitish Thakor)
"Neuroengineering Training Grant" Role: Participating Faculty

Editorial Activities:

Editorial Board Appointments:

Journal of Neuro-Oncology, Associate Editor, 1995
The International Journal of Drug Targeting, 1995
Neurosurgery, 1997 - present
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

Editor:

Guest Editor, Journal of Neuro-Oncology (Special Edition: Implant Approach to Chemotherapy), 1995.
Associate Editor, Youmans Textbook of Neurological Surgery-5th Edition, 2003.
Associate Editor, Annals of Surgical Oncology (Section of Neuro-Oncology) 2002-2005.
Associate Editor, Youmans Textbook of Neurological Surgery-6th Edition, 2007

Journal peer-review activities

CLINICAL ACTIVITIES

Certification: Medical, other state/gov licensure (date, identification #)

Medical Licensure

Maryland Board of Physicians

Awarded: Physician & Surgeon Certification No. D0024362

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

Service Responsibilities (specialty, role, time commitment)

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments: (committees, dates)

Department Chairman Search Committees:

2000 Psychiatry
2001 Surgery
2002 Radiation Oncology
2003 Radiology
2003 Anesthesia (Vice Chairman)
2003 Ophthalmology (Chairman)
2007 Neurology
2007 Oncology

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 - Present Director, Scientific Research Center; New Approaches to Brain Tumor

	Therapy(NABTT;NIH,NCI)
1995 - 2000	Associate Professor Promotions Committee, Johns Hopkins SOM
1995 - Present	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 - 2002	Budget, Finance & Planning Committee of the Clinical Practice Assoc, JHMI.
2000 - 2003	Professors Promotions Committee, Johns Hopkins, SOM
2000 - Present	Surgical Sciences Chiefs Committee
2000 - 2005	Length of Stay Initiative
2000 - 2005	Casemix/Clinical Documentation Committee
2000 - Present	Clinical Directors Committee, JHH
2000 - Present	Johns Hopkins Hospital Medical Board
2000 - Present	Advisory Board of Medical Faculty, JHUSOM
2000 - Present	Board of Directors, Clinical Practice Association of Johns Hopkins Medical Institutions.
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 - 2006	Board of Governors, Clinical Practice Association, JHUSOM.
2002 - 2005	Johns Hopkins Medicine Committee on Faculty Development and Gender
2002 - Present	Innovation in Quality Patient Care Steering Committee
2002 - Present	Advisory Council, Sidney Kimmel Comprehensive Cancer Center
2002 - Present	Chairman, Budget, Finance & Planning Committee of the Clinical Practice
2003 - 2005	Agenda Committee of the Advisory Board of Medical Faculty – JHUSOM
2003 - 2005	Cancer Research Building Planning Council
2003 - Present	Technology Opportunities Program Committee, JHUSOM
2007 - 2010	Board of Governors, Clinical Practice Association, JHUSOM.
2007 -	Advisory Board, Brain Science Institute, JHUSOM.

Professional Societies: (membership, committees, dates, role)

National Committees:

1988 - 1993	Preuss Research Award Selection Committee
1989 - 1990	Scientific Committee for the Convention of Congress of Neurological Surgeons
1990 - Present	Brain Tumor Research Subcommittee for the Joint AANS/CNS
1992 - Present	Surgical Committee of the Radiation Therapy Oncology Group (RTOG)
1996 - Present	National Comprehensive Cancer Network (NCCN)
1999 - Present	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 – Present	Institute of Medicine, National Academy of Sciences: IOM Membership Committee, Vice-Chair, Section 1 (2003-2005) IOM, Membership Committee, Chair, Section 1 (2005-2007)
2005 -	Research Update in Neuroscience for Neurosurgeons at the Marine Biological Laboratory, Woods Hole, Massachusetts. Course Co-Director Committee

- 2007 - B.R.A.I.N. (Brain Research Academy International for Neoplasia) founding member
2007 American Academy of Neurological Surgery, Scientific Program Chair -69th Annual Meeting, Lake Las Vegas, Henderson, Nevada Oct 31-Nov 3, 2007.

Conference Organizer, Session Chair: (sponsor, date, role)

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

Advisory Committees, Review Groups: (sponsor, date, role)

Scientific Advisory Committees:

- 1997-present National Brain Tumor Foundation, San Francisco
1997-present Brain Tumor Society, Boston,

N.I.H. Study Section – Reviewer:

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

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-present
5. American Cancer Society - 2000

Consultantships: (organization/agency, date, role)

Scientific Advisory Boards:

- International Cancer Alliance, Bethesda, Maryland
1991 – 2001 Focal, Inc., Lexington, Massachusetts
1993 – 1996 Boston Life Sciences, Inc., Waltham, Massachusetts
1994 – 1997 Polykinetix, Inc., New York, New York
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 EntreMed, Inc., Oncology Advisory Board
2000 – 10/2005 Guilford Pharmaceuticals, Inc., Baltimore, MD (consultant)
2000 – 9/30/05 GMP Companies, Inc.
2001 PureTech Ventures, LLC
2001 Accelerate Brain Cancer Cure (ABC²)
2003 – present CytoDome, Inc, Dunwoody, GA.
2004 – 2006 MacroMed, Inc., Sandy UT
2005 – present Day Casebeer Madrid & Batchelder LLP, Cupertino, CA (consultant)
2005 – present BrainsGate, Ltd, Israel
2005 – present Northwest Biotherapeutics, Inc, Bothell, WA

Board of Directors:

1991 – 2001	Focal, Inc., Lexington, MA
1997 – 2000	Carson Scholarship Foundation, Baltimore, MD
1999 – 2004	Beth Tfiloh Day School, Baltimore, MD
2003 – 2005	Ben Fund, Baltimore, MD
2007 -	Alseres Pharmaceuticals, Inc.

RECOGNITION

Awards, honors: (title, date, description, sponsor)

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.
2000	International Fellow of Biomaterials Science and Engineering (FBSE), Society for Biomaterials.
2000	Grass Foundation Award of the Society of Neurological Surgeons.
2001	Founders' Award, Controlled Release Society
2004	New York University Distinguished Alumni Award
2005	2005 Technology Innovation and Development Award of the Society for Biomaterials
2005	Coleman Fellow in Life Sciences, Ben-Gurion University, Beer-Sheva, Israel

Invited Talks, Panels: (title, date, venue, sponsor)

Seminar, Graduate Department of Psychology, New York University.
"Role of Cyclic AMP in the Nervous System." April 3, 1973.

Seminar, Graduate Department of Biology, N.Y.U.
"Membrane Changes and Regulation of DNA Synthesis." April 24, 1973.

Second International Catalina Colloquium on Extracellular Matrix Influences on Gene Expression Cartilage Mediated Inhibition of Tumor Angiogenesis." Sept 23, 1974

Soma Weiss Award Assembly, Harvard Medical School, Boston, MA.
"Inhibition of Tumor Angiogenesis is Mediated by Cartilage." May 13, 1975.

Surgical Grand Rounds, West Roxbury V.A. Hospital. "Tumor Angiogenesis." January 13, 1977.

Medical Grand Rounds, Brockton V.A. Hospital. "Control of Tumor Angiogenesis." May 3, 1977.

Association for Research in Vision and Ophthalmology, Sarasota, Florida. "Vitreous Inhibition of Tumor Neovascularization." April 26, 1977.

Seminar, Department of Medicine, Massachusetts General Hospital. "Inhibition of Neovascularization as a Control of Tumor Growth." June 22, 1977.

Lecture, Wilmer Institute, Johns Hopkins School of Medicine. "Progress in Controlling Tumor Angiogenesis." June 14, 1977.

Soma Weiss Award Assembly, Harvard Medical School, Boston, MA. "Control of Neovascularization." May 18, 1978.

Plastic Surgery Department, Children's Hospital Medical Center and the Peter Bent Brigham Hospital, Boston, MA. "Clinical Observations and Basic Science." July 28, 1978.

Lecture, Workshop in New Research in Diabetic Retinopathy, Boston, Mass. "Cartilage Mediated Inhibition of Neovascularization." September 15, 1978.

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.

Faculty Course in Cervical Neoplasia, Hospital General de Mexico, Mexico City. "Angiogenesis." April 12, 1979.

Surgical Grand Rounds, Peter Bent Brigham Hospital, Boston, Mass. "Control of Tumor Growth." May 12, 1979.

Sixth National Science Writers Seminar of Research to Prevent Blindness, Los Angeles, California. "Progress In Controlling Retinal Neovascularization." October 8, 1979.

Conference on Diabetic Retinal Syndrome, Downstate Medical Center, New York. "Control of Neovascularization." November 12, 1979.

New York Society of Neurosurgery. "Inhibition of Angiogenesis: Significance for Human Brain Tumors" - Award Lecture. March 11, 1980.

Association for Research - Vision and Ophthalmology, Orlando, Florida. "Corneal Inflammation Induced by a Purified Lymphokine." May 9, 1980.

Clinical Congress of the American College of Surgeons, Atlanta, Georgia. "Human Brain Tumors: Differences in Ability to Stimulate Angiogenesis." October 22, 1980.

Conference on Diabetic Renal-Retinal Syndrome II, Downstate Medical Center, New York. "Controlling Blood Vessel Proliferation." Nov., 1981.

The Fellowship of Academic Neurosurgeons, XIII Annual Meeting, New York. "Angiogenesis Theory." March 11, 1983.

American Association of Neurological Surgeons, Washington, D.C.

"Detection of Human Brain Tumors: An In Vitro Method Utilizing CSF." April 27, 1983.

Clinical Congress of the American College of Surgeons, Atlanta, Georgia.

"Detection of Human Central Nervous System Tumors: Use of Migration Stimulating Activity of the Cerebrospinal Fluid. October 19, 1983.

Congress of Neurological Surgeons, Chicago, Illinois. "Brain Tumor Angiogenesis." October 28, 1983.

Neurology Grand Rounds, Johns Hopkins Hospital. "Brain Tumor Angiogenesis." September 20, 1984.

Lecture, Johns Hopkins University School of Medicine,

"Symposium on Temporal Bone Surgery." Nov. 9-10, 1984.

Ophthalmology Grand Rounds, Wilmer Ophthalmological Institute, JHH.

"Retinal Signs and Symptoms of Carotid Artery Disease." November 21, 1984.

Pediatric Neuro-Oncology Conference, Johns Hopkins Hospital.

"New Approaches in Brain Tumor Therapy." December 12, 1984.

Surgical Grand Rounds, Johns Hopkins Hospital. "Hemangioblastomas and Angiogenesis." December 1984.

Oncology Grand Rounds, Johns Hopkins Hospital. "Neovascularization of Brain Tumors." January 10, 1985.

General Surgery Grand Rounds, St. Agnes Hospital, Baltimore, MD.

"Advances in the Diagnosis and Treatment of Brain Tumors." January 16, 1985.

Neurology Grand Rounds, Johns Hopkins Hospital.

"Extracranial-Intracranial Bypass Grafting for Cerebral Ischemia." Mar. 7, 1985.

NINCDS SNB, NIH, Bethesda, MD. "Brain Tumor Angiogenesis." April 12, 1985.

Pathology Lecture, Johns Hopkins Hospital. "Tumor Vasculature." April 16, 1985.

Lecture, The Johns Hopkins Medical and Surgical Association.

"Angiogenesis Factor and its Potentials for Therapy in Brain Tumors." Jun 14, 1985

Medical Grand Rounds, Francis Scott Key Medical Center, Balto, MD.

"Treatment of Brain Tumors." January 15, 1986.

Lecture, Johns Hopkins Medical Institutions, Skull Base Tumor Course.

"Tumors of the Foramen Magnum." February 8, 1986.

Lecture, Johns Hopkins University, Acute Care in Neurology and Neurosurgery.

"New Approaches to Treatment of Brain Tumors." April 4, 1986.

Lecture, Johns Hopkins University, Department of Rehabilitation Medicine.

"Management of Aneurysms and Vascular Malformations. May 19, 1986.

Surgery Grand Rounds, Johns Hopkins Hospital. "Metastatic Spinal Disease." March 7, 1987.

Science Writers Conference on Brain Cancer. March 18, 1987.

Lecture, Johns Hopkins University, Topics in Clinical Medicine 1987.

"Pituitary Lesions." May 15, 1987.

Lecture, Society of University Neurological Surgeons.

"Human Brain Tumor Angiogenesis: drug delivery by bioerodible materials." May 29, 1987.

Lecture, The Johns Hopkins Medical and Surgical Association.

"Angiogenesis in Human Brain Tumors." June 12, 1987.

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.

Lecture, The Johns Hopkins Medical Institutions, PET Scanning Course.

"PET Scanning of Brain Tumors." March 18, 1988.

Visiting Professor, Columbia College of Physician and Surgeons, New York, NY.

"Advances in Neuro-Oncology." June 30, 1988.

Lecture, 6th Gordon Research Conference on Drug Carriers in Biology and Medicine, Plymouth, NH. "Clinical Studies: Bioerodible Polyanhydrides for Brain Disorders." July 13, 1988.

Lecture, Joint Tumor Section Program of the Congress of Neurological Surgeons, Seattle, WA. "Tumor Angiogenesis." September 26, 1988.

Lecture, Johns Hopkins University Medical School, Basic Surgical Clerkship Lecture Series. "Brain Tumors." Quarterly, 1988 - 1990.

Lecture, Association of Government Toxicologists. Rockville, MD. "Implants." Oct. 27, 1988.

Lecture, University of Pennsylvania, Visiting Professor.

"Interstitial Chemotherapy for Brain Tumor Angiogenesis." March 9-10, 1989.

Lecture, Peripatetic Club, 52nd Annual Meeting, Baltimore, Maryland.

"Biodegradable Polymers as Vehicles for Therapeutic Agents." March 31, 1989.

Seminar, The American Association of Neurological Surgeons, Washington, D.C.

"Intralesional Therapies for Malignant Gliomas." April 6, 1989.

Lecture, Neurosurgery Grand Rounds, Christiana Hospital, Newark, DE.

"Advances in Neuro-Oncology." May 18, 1989.

Lecture, Johns Hopkins Hospital Centennial, Baltimore, MD. "Neuro-oncology." June 6, 1989

Lecture, NATO ASI, Cape Sounion, Greece, Targeting of Drugs: Optimization Studies. June 24-July 5, 1989.

Lecture, Controlled Release Society, Chicago, IL. "Controlled Delivery to the Brain." August 7, 1989.

Lecture, Review and Update in Neurobiology for Neurosurgeons, Woods Hole, Massachusetts. "Biodegradable Polymers." November 11, 1989.

Lecture, Tables Rondes Roussel-UCLAF, Paris, France. "Delivery of Drugs to the Brain by Use of Sustained-Release Polyanhydride Polymer System." Dec 7, 1989.

Lecture, Stockholm, Sweden. "Clinical Trials of Controlled Release Polymers." December 10, 1989.

Lecture, McGill University - Neuroscience Symposium, Montreal, Quebec, Canada.
"Biodegradable Polymers to Treat Brain Tumors." January 10, 1990.

Lecture, Johns Hopkins Hospital, Surgery Grand Rounds. "Intraoperative Drug Delivery." March 10, 1990.

Plenary Lecture, American Chemical Society, Boston, MA.
"The Development of Polyanhydrides to Treat Brain Tumors." April 26, 1990.

Lecture, Research Society of Neurological Surgery, Boston, MA. "Brain Tumor Angiogenesis." June 14, 1990.

Visiting Professor, Georgetown University School of Medicine, Neurosurgery Grand Rounds, Washington, D.C.
"New Approaches to Treating Brain Tumors." Jun 20, 1990

Visiting Professor, Chicago Neurological Center.
"The Development of Local Therapy for Brain Tumors." July 9, 1990.

Lecture, Johns Hopkins Hospital, Surgery Grand Rounds.
"Progress in the Treatment of Pituitary Tumors." October 13, 1990

Visiting Professor, Robert Wood Johnson Medical School, New Brunswick, New Jersey. "New Approaches to Treat Brain Tumors" November 28, 1990.

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.

Lecture, International Symposium on Angiogenesis, St. Gallen, Switzerland,
"Drug Delivery to the Brain and Angiogenesis Inhibition." March 13, 1991.

Lecture, The Preuss Foundation Seminar on Pharmacologic Problems in the Treatment of Glial Tumors, Durham, North Carolina. April 16, 1991.

Lecture, Research Society of Neurological Surgeons, Durham, North Carolina.
"Drug Delivery to the Brain Utilizing Biodegradable Polymers." May 3, 1991.

Plenary lecture, American Association of Cancer Research, Houston, Texas.
"Interstitial Chemotherapy Utilizing Polymers for Treating Brain Tumors." May 17, 1991.

Lecture, Johns Hopkins University Joint Neurology/Neurosurgery Biennial Meeting. "Polymers for Treatment of Brain Tumors." June 7, 1991.

Lecture, Johns Hopkins University Surgical Symposium.
"New Approaches to the Treatment of Brain Tumors." June 7, 1991.

Lecture, International Conference on Biomaterials, Jerusalem, Israel.
"Biodegradable polymer implants to release drugs in the treatment of brain disease." June 9, 1991.

Lecture, The Ninth International Conference on Brain Tumor Research and Therapy, Asilomar, California.
"Interstitial chemotherapy." October 16, 1991.

The Chicago Institute for Neurosurgery and Neuroresearch, Basic Neurooncology Symposium. "Biodegradable Polymers for Brain Tumor Treatment." Nov 9, 1991.

US-Japan Conference on Drug Delivery Systems, Maui, Hawaii.

"Controlled Drug Delivery Systems for the Brain." Dec 16, 1991.

Lederle Laboratories, Dept of Molecular Biology, New York.

"Mechanism of Tetracycline Inhibition of Angiogenesis." January 28, 1992.

Department of Chemical Engineering, M.I.T. "Polymer Development." February 24, 1992.

Neurology Lecture Series, Johns Hopkins Hospital. "Control of Angiogenesis." February 25, 1992.

Co-Chairman, Preuss Foundation Symposium. Dallas, Texas,

"Delivery of Treatment to Brain Tumors." March 12-13, 1992.

American Chemical Society, San Francisco, CA.

"Controlled Release Polymers to Deliver Drugs to the Brain." April 8, 1992.

Second Jerusalem Conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel. "Drug Delivery to the Brain." May 29, 1992.

Neurology and Oncology Grand Rounds, Jerusalem, Israel.

"New Developments in Brain Tumor Treatment." May 31, 1992.

Gordon Research Conference on Drug Carriers in Biology and Medicine, New Hampshire.

"Polymer Controlled Delivery to the Brain." July 6, 1992.

American Association of Colleges of Pharmacy (AACP), Washington, D.C.

"Biodegradable Implants for Brain Cancer." July 12, 1992.

Controlled Release Society Symposium, Orlando, Florida,

"Controlled Delivery Systems for the Brain." July 31, 1992.

Visiting Professor, Polish Academy of Sciences, Warsaw, Poland.

"New Approaches to Intracranial Edema." August 21, 1992

Strategic Alliances with Industry, Greater Baltimore Committee's High Tech Assembly, Baltimore, Maryland.

"Surgery, Drug Delivery and Computer Visualization." October 21, 1992.

Congress of Neurological Surgeons, Washington, D.C.

"Pharmacological Surgical Implants for Brain Tumor Therapy." November 2, 1992.

Visiting Professor, Ohio State University, Department of Surgery.

"Local Delivery of Chemotherapeutic Agents for the Treatment of Cancer." November 7, 1992.

International Congress on Advances in Brain Revascularization, Eilat, Israel.

"Polymers as Controlled Drug Delivery Systems for the Brain." April 22, 1993.

American Association for Neurological Surgeons, Boston, MA.

"New Windows in Glioma Treatment." April 27, 1993.

Third Drug Discovery and Development Symposium, San Diego, CA.

"Local Drug Delivery to Tumor using Polymer." July 24, 1993.

Congress of Neurological Surgeons, Vancouver, British Columbia

"Interstitial Chemotherapy for Brain Tumors." October 4, 1993.

American Academy of Neurological Surgery, Phoenix, AZ.

"Polymers as an Intracranial Implantable Controlled Drug Delivery System." October 30, 1993.

Harvard Medical School - Continuing Education Medical Course, Boston, MA.

"Delivery Systems for Brain Tumor Therapy." November 11, 1993.

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.

The 2nd US-Japan Symposium on Drug Delivery, Maui, Hawaii.

"Neural Applications of Controlled Delivery Devices." December 1993.

The New York Academy of Sciences Symposium, Tampa, Florida.

"Biodegradable Polymers for Neurological Applications." January 21, 1994.

Pet and Spect Imaging in Oncology, Johns Hopkins Medical Institutions, Baltimore, Maryland. "Therapeutic Decisions in Patients with Brain Tumors." March 9, 1994.

The Society of Surgical Oncology, Houston, Texas.

"Polymers as an Intracranial Implantable Controlled Drug Delivery System." March 19, 1994.

The American Association of Neurological Surgeons, San Diego, CA.

"Novel Treatments for Malignant Gliomas." April 14, 1994.

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.

The Controlled Release Society, Nice, France.

"Polymers as an Intracranial Implantable Controlled Drug Delivery System." June 28, 1994.

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.

Multidisciplinary Clinical Conference, Johns Hopkins Oncology Center

"Local Delivery of Chemotherapy for Brain Tumors." October 20, 1994.

The Neurological Institute Association of the Alumni, Columbia University, NY.

"New Horizons in Brain Tumor Therapy: From Laboratory to Bedside." December 1, 1994.

Seattle Glioblastoma Workshop, Seattle, Washington.

"Polymer Systems for Drug Delivery to Brain Tumors." Dec 10-11, 1994.

The Keystone Symposia on Molecular & Cellular Biology, Hilton Head, SC.

"Drug Delivery for Brain Tumors." January 11, 1995.

UCLA Symposium on Advances in Brain Tumor Management, Las Vegas, NV.

"Biodegradable Polymers" and "Angiogenesis." Feb 18, 1995

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.

Neuroscience Medical Student Course, Johns Hopkins University School of Medicine. "Brain Tumors." March 3, 1995.

Walter E. Dandy Visiting Professor, Baltimore, MD.
"Treatment of Brain Tumors: Past, Present and Future." March 9, 1995.

1995 Clemson Award Recipient for Biomaterials Research, Society for Biomaterials, San Francisco. "Polymeric Drug Delivery to the Brain." March 19-23, 1995.

American Association of Neurological Surgeons, Orlando, FL.
"Current and Novel Treatments of Malignant Gliomas." April 27, 1995.

M.I.T. Chemical Engineering Lectureship, Cambridge, MA. "New Medical Technologies." May 8, 1995.

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.

The Johns Hopkins Medical & Surgical Association Biennial Meeting, Baltimore, MD. "New Approaches to Brain Tumor Therapy." June 9, 1995.

American Chemical Society, Conference on Formulations and Drug Delivery, Boston, Massachusetts. "Polymer Systems for Drug Delivery to the Brain." October 12, 1995.

Congress of Neurological Surgeons, San Francisco, CA "Treatment of Recurrent Gliomas." October 16, 1995.

American Neurological Association, Washington, DC. "Clinical Trials of Brain Tumor Therapy." Oct 23, 1995.

Society of Surgical Chairmen, Washington, DC. "Craniotomy Outcome Analysis." October 29, 1995.

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.

American Academy of Neurological Surgeons, Tucson, Arizona.
"Surgically Implanted Biodegradable Polymers for the Treatment of Malignant Gliomas." Nov 4, 1995.

Visiting Professor, Neurology Grand Rounds, Johns Hopkins University, Baltimore, Md. "Drug Delivery to the Brain." November 9, 1995.

Controlled Release Society - 3rd US-Japan Symposium, Maui, Hawaii.
"Novel Delivery Therapies for Cancer." Dec 17-22, 1995.

American Association for the Advancement of Science, Baltimore, MD.
"Polymeric Delivery Systems to the Brain." Feb 11, 1996.

Sandra Altman Memorial Lecture, University of Pennsylvania, Philadelphia, PA.
"Novel Treatments for Brain Tumors." February 29, 1996.

Neuroscience Teaching Course, Johns Hopkins School of Medicine, Baltimore, MD.
"Clinical Correlation." March 1, 1996.

Neuropathology Teaching Course, Johns Hopkins School of Medicine, Baltimore, MD. March 4, 1996.

Neurology Grand Rounds, University of Maryland, Baltimore. MD.

"Local Therapy of Brain Tumors." March 13, 1996.

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.

PET and SPECT Imaging in Cancer Diagnosis and Treatment, Baltimore, MD.
"The Problem: Care of Patients with Brain Tumors." March 27, 1996.

Howard University Cancer Center, Seminars in Oncology, Washington, DC.
"Chemotherapeutic Implants for Malignant Brain Tumors." April 18, 1996.

Johns Hopkins University, Department of Medicine, Baltimore, MD.
"New Approaches to Brain Tumor Therapy." April 27, 1996.

American Association of Neurological Surgeons, Minneapolis, MN. "Polymeric Delivery systems to Treat Brain Tumors: Current Clinical Status and Future Studies." May 2, 1996.

Visiting Professor, University of Cincinnati, Cincinnati, OH
"Inhibition of Brain Tumor Angiogenesis." June 18, 1996.
"Novel Treatments of Brain Tumors." June 19, 1996.

3rd Jerusalem conference on Pharmaceutical Sciences and Clinical Pharmacology, Jerusalem, Israel. "Polymeric Delivery to the Brain: Laboratory and Clinical Studies." September 4, 1996.

Congress of Neurological Surgeons, Satellite Symposium, Joint Section on Tumor, Montreal, Canada.
"Molecular Therapy." October 4, 1996.

Johns Hopkins University, Neuroscience, The Neurosurgeon in Society Program.
"Introduction of New Therapies." October 31, 1996.

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.

Johns Hopkins University, Department of Chemistry, Homewood Campus, Baltimore, MD. Colloquium Series Seminar. "Drug Delivery to the Brain." Nov 12, 1996.

Training Program for Gliadel^R Usage, Rhone-Poulenc Rorer, Dallas, TX. Dec 10 and Dec 16, 1996.

18th Annual Eino Nelson Memorial Conference, Aventura, Florida.
"Localized Controlled Delivery of Chemotherapy for Brain Tumors." Jan 7, 1997.

European Association of Neurological Surgeons, Paris, France.
"Defining a Standard for Local Therapy of Gliomas." February 1, 1997.

Neuroscience Medical School Course, Johns Hopkins University, Baltimore, MD.
"Clinical Correlations" February 28, 1997.

The Neurosurgeon in Society Program, Johns Hopkins Department of Neurosurgery.
"After Cushing and Dandy," April 3, 1997.

Visiting Professor, University of Florida, Tampa, FL "New Approaches to Brain Tumor Therapy," April 4, 1997.

Visiting Professor, The Moffitt Cancer Center, Tampa, Florida,
"Controlled Sustained Release Polymers to Deliver Cancer Therapy," April 4, 1997.

Medical Technology Assessment Course, Johns Hopkins School of Public Health, Baltimore, MD. "Assessing New Technologies." April 11, 1997.

American Association of Neurological Surgeons, Denver, Colorado.
Seminar Moderator, "Current and Novel Treatment of Malignant Gliomas." April 17, 1997.

West Coast Advisory Panel on Brain Tumor Therapy, Laguna Beach, CA.
"Role Gliadel^R in Treating Brain Tumors." April 19, 1997.

American Association of Pharmaceutical Scientists Western Regional Meeting, San Francisco, California. "Drug Delivery to the Brain Using Biodegradable Polymers." April 24, 1997.

The 6th Meeting of the Scandinavian Glioma Group, Espoo, Finland.
"Local Chemotherapy of Gliomas." May 15, 1997.

American Society of Hospital Pharmacists, Minneapolis, MN.
"New Treatments for Brain Disease." June 5, 1997.

Johns Hopkins Medical and Surgical Biennial Meeting, Baltimore, MD.,
"Advances in Brain Tumor Therapy." June 6, 1997.

Fourth Anticancer Drug Discovery Symposium, Annapolis, Maryland.
"Polymeric Local Delivery of Therapeutic Agents to Treat Brain Tumors." August 5, 1997.

Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM), Berlin, Germany.
"Clinical Experience with BCNU-polymers." August 6, 1997.

American Academy of Otolaryngology-Head and Neck Surgery, San Francisco, CA.
"Cerebrospinal Fluid and Cerebral Vasculature Dynamics in Skull Base Surgery." Sept 10, 1997.

Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD.
"Treatment of Brain Tumors Utilizing Controlled Drug Delivery." September 19, 1997.

Localized Treatments for Brain Cancer Symposium, New Orleans.
"Chemotherapeutic Wafer Implant after Glioma Surgery." September 29, 1997.

Johns Hopkins School of Medicine, Neurosurgeon In Society Program, Balto, MD.
"Pituitary Tumors." October 9, 1997

Visiting Professor, University of Chicago, Chicago, IL.
"New Approaches to Brain Tumor Therapy." October 17, 1997.

New Jersey Neurological Society, Short Hills, NJ.
"Interstitial Chemotherapy for Brain Tumors." November 3, 1997.

Medicines Control Agency, London, England. "Clinical Trial Results with Gliadel^R." Nov 7, 1997.

Seminaire Franco-Mexicain de Neurologie et de Neuroradiologie, Hospital de la Salpetriere. Paris, France.
"Clinical Experience with Gliadel^R Wafer in Glioblastoma." November 13, 1997.

NYU Post-Graduate Medical School Course (A Systems Approach to Glial Neoplasms), New York, NY. "The Future of Interstitial Chemotherapy" November 14, 1997.

Medical Grand Rounds, Johns Hopkins School of Medicine.

“New Approaches to Drug Delivery in the Brain.” November 21, 1997.

French Regulatory Agency, Paris, France. “Gliadel^R to Treat Malignant Glioma.” November 26, 1997.

4th US-Japan Symposium on Drug Delivery Systems, Kauai, Hawaii.

“Polymers for the Development Brain Tumor Vaccines.” December 14-19, 1997.

Visiting Professor, University of Tennessee, Memphis, TN.

“Development of New Treatment Approach for Brain Tumors.” February 6, 1998.

Astra Merck Neuroscience Seminar, Phoenix, Arizona.

“Brain Drug Delivery Using Intra-Cerebral Implants.” March 7, 1998.

Neurology Grand Rounds, Johns Hopkins School of Medicine, Baltimore, MD.

“New Approaches to Brain Tumor Therapy.” March 5, 1998.

American College of Surgeons - Young Surgical Investigators' Conference, Chantilly, Virginia.

“Grant Writing Skills-Mock Study Section on Neurosurgical Surgery.” March 9, 1998.

American Association of Neurological Surgeons, Philadelphia, PA. Seminar Moderator,

“Current and Novel Treatment of Malignant Gliomas.” April 30, 1998.

Visiting Professor, Medical College of Georgia, Augusta, GA.

“New Approaches to Brain Tumor Therapy.” May 7, 1998.

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.

Neurosurgery Visiting Professor, Beth Israel-Deaconess Hospital, Boston, MA.

“New Approaches in Brain Tumor Therapy.” June 24, 1998.

Genetics in Neuroscience, 1st International Congress, Terni, Italy.

“Management of Gliomas.” June 30, 1998.

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.

Third Congress of the European Association for Neuro-Oncology (EANO III), Versailles, France. “Interstitial Chemotherapy: clinical Experience and Perspectives.” September 14, 1998.

Congress of Neurological Surgeons, Seattle, WA. “From Laboratory Bench to Clinical Application.” Oct 5, 1998.

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.

Radiology Grand Rounds, Johns Hopkins School of Medicine.

“The Development of New Approaches to Treating Brain Tumors” Oct 27, 1998

United Kingdom and Ireland Controlled Release Society Symposium, Aston University, Birmingham, England.

“Polymers for CNS Delivery.” January 8, 1999.

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.

Johns Hopkins Medicine Technology Fair, Baltimore, MD.

“New Delivery Approaches for Cancer and for the Brain.” March 19, 1999.

American Society for Experimental Neuro-Therapeutics, Inc., Washington, DC.

“New Technologies for Effective Delivery of Neurotherapeutic Agents.” Mar 20, 1999

The American Association of Neurological Surgeons, New Orleans, LA.

“Craniotomy for Tumor: Outcomes in High Volume Versus Low Volume Hospitals.” April 26, 1999.

Johns Hopkins Medical Institutions, Surgical Grand Rounds, Balto, MD.

“New Approaches for Brain Tumor Therapy.” May 8, 1999.

Johns Hopkins Medicine Faculty Leadership Development Program, Balto, MD.

“Fulfilling the Research Mission: Leadership Challenges (Clinical Research). June 3, 1999.

Controlled Release Society, Boston, MA. “Polymer Delivery of Therapeutic Agents for Cancer.” June 24, 1999.

Macromolecular Drug Delivery Conference, Breckenridge, CO.

“Polymeric Delivery of Cytokines for the Treatment of Tumors.” July 16, 1999.

Harvard Medical School Postgraduate Course, Tumors of the Central Nervous System: Brain Tumor Management, Boston, MA. “Interstitial Chemotherapy for Brain Tumors.” September 13, 1999.

Fifth Anticancer Drug Discovery and Development Symposium, Detroit, MI.

“Polymeric Local Delivery of Therapeutic Agents to Treat Brain Tumors.” September 24, 1999.

Visiting Professor, Walter Reed Army Medical Center, Washington, DC.

“Advances in Local Therapy for Brain Tumors.” “Development of a Research Program.” Oct 25, 1999.

Congress of Neurological Surgeons, Boston, MA. Moderator, Luncheon Seminar,

“Current Management of Malignant Gliomas.” November 2, 1999.

Visiting Professor, St. Joseph Medical Center, Baltimore, MD.

“New Approaches for Brain Tumor Treatment.” December 3, 1999.

US-Japan Symposium on Drug Delivery Systems, Kaanapali Beach, Lahaina, Hawaii.

“Clinical Development Utilizing Biodegradable Polymer Implants.” December 12-17, 1999.

Visiting Professor, University of California, Irvine. “Brain Tumor Treatment-2000.” January 12, 2000.

Visiting Professor, Cedars-Sinai Medical Center, Los Angeles, CA.

“Brain Tumor Treatment-2000.” January 12, 2000.

Visiting Professor, University Hospital of Brooklyn, Health Science Center, Brooklyn, NY.

“Adjunct Treatment of Recurrent Glioblastoma Multiforme.” January 27, 2000.

American Association of Neurological Surgeons, San Francisco, CA.

“New Developments in Local Therapy of Brain Tumors.” April 10, 2000.

AANS/CNS Section on Tumors Satellite Symposium, San Francisco, CA.

“Implantable Biodegradable Polymers.” April 13, 2000.

The Society of Neurological Surgeons, Pasadena, CA.

“Brain Tumor Therapy,” May 21, 2000. (Grass Foundation Award)

La Genetica Nelle Neuroscienze, Terni, Italy. “Neuro-Oncology Clinical Lecture.” July 3, 2000.

Visiting Professor, Yale University, New Haven, CT. “New Approaches to Brain Tumor Therapy.” Sept 6, 2000.

Controlled Release Society, International Symposium on Tumor Targeted Delivery Systems, Bethesda, MD.

“Polymer Drug Delivery for Cancer Therapy: Clinical Observations.” September 25, 2000.

Congress of Neurological Surgeons, San Antonio, Texas.

Moderator, Luncheon Seminar, “Novel Therapies for Malignant Gliomas.” September 26, 2000.

Society for Neuro-Oncology, Annual Meeting, Chicago, IL.

Moderator, Session: “Therapeutic Studies 1” November 10, 2000.

Pivotal Glioma Trial Meeting, San Juan, Puerto Rico. “Gliadel Clinical Presentation.” November 18, 2000.

South Florida Brain Tumor Association, Fort Lauderdale, Florida.

Keynote Address: “Advances in Brain Tumor Therapy.” Jan 20, 2001.

MD Anderson Cancer Center, Houston, Texas, Neurosurgical Oncology Symposium: The Decade Ahead.

“Intracavitary Drug Delivery: Clinical Potential.” Jan 27, 2001

Clinical Neuroscience Lecture, Johns Hopkins School of Medicine, Baltimore, MD.

“Developments in Brain Tumor Therapy.” Feb 5, 2001.

The Cleveland Clinic Foundation, Neuro-Onc Symposium, Naples, FL.

“Intratumoral Chemotherapy,” February 19, 2001

“The Structure and Function of NABTT Consortium” Feb 20, 2001.

Baltimore Women’s Forum, Baltimore, MD. “The Brain and Intelligence in the New Century.” March 7, 2001.

Visiting Professor, University of Pittsburgh. Pittsburgh, PA.

“New Approaches to Brain Tumor Therapy” and “Novel Brain Tumor Therapies.” March 21, 2001.

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.

Visiting Professor, Department of Neurosurgery, George Washington University, Washington DC.

“Neuro-Oncology Advances.” May 23, 2001.

Johns Hopkins Medical and Surgical Association Biennial Meeting, Johns Hopkins Hospital,

Baltimore, MD. “New Developments in tumor Therapy.” June 8, 2001.

Update in Clinical Neurosciences, Baltimore, MD. Moderator: “Discussion of Case Studies”. June 22, 2001.

Accelerate Brain Cancer Cure Retreat (ABC), Santa Barbara, CA.

Moderator: “Latest on Brain Cancer” July 13, 2001.

The Johns Hopkins University School of Medicine, Neurology Medical Student Clerkship Lecture, Baltimore,

MD. “Brain Tumors and Subarachnoid Hemorrhage.” July 17, 2001.

Polymers for Advanced Technologies Symposium, Eilat, Israel.

"Brain Tumors Treatments with Polymer Delivery Systems: Preclinical and Clinical Results." Sept 5, 2001.

Johns Hopkins University and Technion-Israel Institute of Technology, Balto, MD.

"Brain Tumor Research." September 11, 2001.

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.

Johns Hopkins University School of Medicine, Dean's Lectures, Baltimore, MD.

"Advances in Brain Tumor Therapy." Dec 3, 2001.

FDA Oncology Drugs Advisory Committee (ODAC), Bethesda, MD. "Gliadel Clinical Trials." Dec 6, 2001

The 6th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii.

"Biodegradable Polymer Implants to Treat Brain Tumors." Dec 21, 2001.

Visiting Professor, Barrow Neurological Institute, Phoenix, AZ.

"Progress in Brain Tumor Therapy." Jan 11, 2002.

Johns Hopkins Town Meeting, Baltimore, MD. "Advances in Neurosurgery." Feb 7, 2002.

Medical Student Forum, Baltimore, MD. "Women in Surgery." Mar 5, 2002.

GMP Scientific Retreat, Hallandale Beach, Florida.

"Neuroscience: Advances in Drug Delivery to the Brain." April 28, 2002.

Johns Hopkins, Baltimore, MD. "Jeffery Williams Memorial." May 30, 2002.

Visiting Professor, Dartmouth University Medical Center, New Hampshire.

"New Approaches to Brain Tumor Therapy." July 26, 2002.

Congress of Neurological Surgeons, Philadelphia, PA.

Moderator, Luncheon Seminar "Controversies in Brain Tumor Management." Sept 24, 2002.

Premiere "Red Dragon", Senator Theater, Baltimore, MD "Dedication for Brain Tumor Research." Oct 7, 2002.

The University of Minnesota Brain Tumor Symposium, Doubletree Hotel, Bloomington, MN.

"Advances in Brain Tumor Therapy." October 25, 2002.

Mt. Sinai School of Medicine-4th Annual Advances in Neurosurgery, Roosevelt Hotel, New York, NY.

"Molecular and Chemotherapeutic Advances." Dec 8, 2002.

Johns Hopkins Palm Beach Meeting, Palm Beach, FL. "Neurosurgery." Jan 22, 2003.

Guilford Advisory Board, Carlyle Hotel, New York, NY.

Moderator of the Brain Tumor Advisory Board. Feb 8, 2003.

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.

GMP 4th Annual Scientific Retreat, Ft. Lauderdale, FL. "Neurosurgery Update." Mar 9, 2003.

American College of Surgeons Oncology Group, Durham, NC. "New Brain Tumor Trials." Mar 27, 2003.

Johns Hopkins Biennial Meeting, Baltimore, MD. "New Directions in Neurosurgery." May 2, 2003.

Visiting Professor, Dept of Neurosurgery, Emory University, Atlanta, Georgia.
"Treatment of Brain Tumors." Nov 6, 2003.

Keynote Speaker, RUNN Conference, Woods Hole, MA.
"Research Advances in Neurooncology." Nov 13, 2003.

The 7th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii
"New Approaches to Brain Tumor Therapy." Dec 14-19, 2003.

Lecture, Palm Beach Neurosurgical Meeting, Palm Beach, FL. "Academic Neurosurgery." Jan 24, 2004.

Lecture, Fifteenth Annual Cancer Progress Conference, New York, NY.
"Novel Formulation Technologies for Cancer Therapy." March 9, 2004.

The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Translational Research Conference.
Baltimore, MD "Targeted Therapy for Brain Tumors." March 10, 2004.

American Association of Neurological Surgeons, Orlando, Florida.
"Targeted Therapy for Brain Tumors." May 5, 2004.

Lecture, AANS Tumor Section Symposium, Orlando, FL.
Session: "Controversies in Neurosurgical Oncology." May 6, 2004.

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.

Symposium Moderator, Genetics and Regeneration in Neuroscience, 4th International Congress, Terni, Italy.
"Advances in Radiation Therapy in the CNS. June 30, 2004.

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.

Johns Hopkins University & Hospital, Evolution of Treatment Options for Adult Patients with Brain Tumors,
Baltimore, MD. "Neurosurgical Management of Pituitary Tumors." Oct. 29, 2004.

Medical Grand Rounds Speaker, Johns Hopkins University, Baltimore, MD.
"New Therapies for Brain Tumors." Dec 17, 2004.

Mount Sinai Lecture, New York, NY. "Adjuvant Treatments for Gliomas." Dec. 18, 2004.

Technion Lecture, Haifa, Israel. "New Approaches to Brain Tumor Therapy." Dec. 27, 2004

Weizmann Neurobiology seminar, The Weizmann's Institute, Rehovot, Israel.
"Therapeutic Delivery to the Brain: Challenges and Opportunities." January 3, 2005

Johns Hopkins Brain Tumor Research Seminar Series, Baltimore, MD
"Therapeutic Delivery to the Brain: Challenges and Opportunities." January 10, 2005

Visiting Professor, Neurosurgery Grand Rounds, Stanford, CA.

"New Approaches to Brain Tumor Therapy." February 11, 2005

Keynote Speaker, Society for Biomaterials, Memphis, TN.

"Technology Innovation and Development of Gliadel™ for the Treatment of Brain Tumors." April 30, 2005.

Hopkins Biotech Network, Baltimore, MD

"Finding Harmony Between Academic Research and Entrepreneurship" Panelist on Gliadel® . May 5, 2005.

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

Johns Hopkins Medical and Surgical Association Biennial Meeting, Baltimore, MD.

"New Directions in Neurosurgery at Johns Hopkins." June 3, 2005.

E. Llewelyn Thomas lecturer, The Institute of Biomaterials and Biomedical Engineering, Toronto, CA

"Brain Tumor Therapy" June 7, 2005

Updates in Neuro-Oncology, Arezzo, Italy.

"Translating Research Findings into Clinical Applications." June 25, 2005

Food and Drug Administration, Rockville, MD.

"Development of New Therapy for Brain Tumors." September 26, 2005

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.

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.

RUNN Conference, Woods Hole, MA.

"Brain Tumor Therapy." October 27, 2005.

Johns Hopkins Biotechnology Meeting on Neurosurgery, Chicago, IL.

"Advances in Neurosurgery Technology". April 10, 2006.

Rambam Medical School, H'aifa, Israel

"Advances in Brain Tumor Therapy." April 20, 2006.

Asilomar 006 Brain Tumor Research and Therapy Meeting at Silverado, CA

"Targeting Brain Tumor Therapy." April 27, 2006.

Lecture: Johns Hopkins General Surgery Interns. Johns Hopkins Hospital, Baltimore, MD

"Neurosurgical problems and emergencies." May 4, 2006.

Second Joint American-Israeli Conference on Cancer, Jerusalem, ISRAEL

"New Approaches to Brain Tumor Therapy." June 30, 2006

Symposium Honoring Robert S. Langer – 30 Years in Science. Boston, MA
"Dr. Langer's Impact on Medicine." July 14, 2006.

Neuro-Oncology Update, FedEx Institute of Technology, Memphis, TN
"Development of New Therapies for Brain Tumors." August 24, 2006.

Congress of Neurological Surgeons, Chicago, Illinois.
Seminar M07 Moderator "Malignant Gliomas: Current Surgical and Adjuvant Strategies." Oct. 9, 2006.

American Academy of Neurological Surgery, Ritz Carlton Reynolds Plantation, Georgia
"Directed Therapy with Polymers for Brain Tumors." October 21, 2006.

RUNN Conference, Woods Hole, MA.
"Brain Tumor Therapy." October 22, 2006.

The Johns Hopkins Health System Corporation and The Johns Hopkins Hospital Board. Baltimore, MD
"Neurosciences Safety Initiatives." December 5, 2006.

David H. Koch Building Dedication, Johns Hopkins School of Medicine, Baltimore, MD.
"From Discovery to Results." December 5, 2006.

Visiting Professor, Grand Rounds, University of Medicine and Dentistry of New Jersey, Newark, NJ.
"Brain Tumor Therapy: From Bench to Bedside." December 13, 2006.

Florida Brain Tumor Association, 8th biennial Brain Tumor Conference, Fort Lauderdale, FL
"Developing New Brain Tumor Therapies." January 20, 2007.

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.

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.

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.

56th Congresso Nazionale SINch, Rome, Italy
"New Therapies for Malignant Gliomas." June 26, 2007.

3rd International Meeting Updates in Neuro-Oncology, Cortona, Arezzo, Italy
"Developing New Therapies for Brain Tumors." June 30, 2007.

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.

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.

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

Lecture, RUNN Course, Woods Hole, MA. "Brain Tumor Therapy." October 21, 2007.

Israel: get from Henry.

Moderator and Scientific Program Chair. The American Academy of Neurological Surgery, Lake Las Vegas, NV. October 31 – November 3, 2007.

Plenary Speaker, 9th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii.
"Targeted Brain Tumor Therapy." December 17, 2007.

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.

Neurosurgery Resident Lecture, The Hospital for Sick Children, Toronto, CA.
"Brain Tumor Angiogenesis." January 25, 2008.

Visiting Professor, Neurosurgery Grand Rounds, Cornell University, Ithaca, NY
"Developing New Therapies for Brain Tumors." Feb. 11, 2008.

Visiting Professor, Neurosurgery Grand Rounds, Montefiore Hospital, NY.
"Brain Tumor Therapy." March 24, 2008.

American Association of Neurological Surgeons, Chicago, IL.
Breakfast seminar - Tumor Neurosurgery: Meet the Experts.
"Targeting Brain Tumor Therapy." May 1, 2008. on Thursday, May 1, 2008.

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.

Guest Lecturer, 7th Annual International Neuro-Oncology Updates, Baltimore, MD.
"Targeting Brain Tumor Therapy." September 18, 2008.

Congress of Neurological Surgeons Meeting, Orlando, Florida.
"Preparing for an Academic Laboratory Career: Residency and the Early Faculty Years." Sept 22, 2008.

Congress of Neurological Surgeons Meeting, Orlando, Florida.
"How to Pursue an Academic Career in Neurosurgery." Sept 23, 2008.

Lecture, RUNN Course, Woods Hole, MA. "Brain Tumor Therapy." October 19, 2008.

Visiting Professor, Cedars-Sinai Hospital, Los Angeles, CA.
Dinner Lecture - "Advances in Brain Tumor Therapy," Nov 13, 2008.

Neurosurgery Grand Rounds - "Developing New Treatments for Brain Tumors," Nov 14, 2008.

Speaker, Neuroscience Critical Care Seminary, JHU, Baltimore, MD
"Research on the Treatment of Malignant Glioma," November 18, 2008.

Guest Lecturer, Folkman Symposium, Boston, MA.
"Judah Folkman's Influence on Neurosurgery" Dec 5-6, 2008.

Keynote Speaker, AAPS Arden House, West Point, NY.
"How Drug Delivery and Targeting will impact the Future of Medicine." February 2, 2009.

Invited Lecturer: "Gliadel Implant for Brain Tumors." February 2, 2009.

Guest Lecturer, The Baltimore City Medical Society, Baltimore, MD.
"Advances in Neurosurgery." March 10, 2009.

2009 American Association for Cancer Research, Denver, Colorado
Co-Chair, New Concepts Session: Invading the Sanctuary: New Approaches to Brain Metastases.
"Introduction: Importance of Brain Metastasis" April 19, 2009.

2009 Shenkin Lecture, Temple University School of Medicine, Philadelphia, PA.
"Developing New Brain Tumor Therapies" June 12, 2009.

Invited Lecture, 10th International Symposium on Polymers for Advanced Technologies (PAT2009),
Hebrew University of Jerusalem. "Brain Tumor Therapy Advances." October 11-14, 2009.

RUNN COURSE, Woods Hole, MA
Title: TBN. October 17-24, 2009.

Invited Reviews, Editorials: (reference)

"Hurting Care, and Lives." Henry Brem and Benjamin S. Carson Sr.
The Washington Post, Washington, D.C.; Editorial commentary, December 28, 2004, A-19.

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, Luty 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 Neurological 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 ³¹P 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 K, 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 American 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 American Association 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, Latterra 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, H. 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, Latterra 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, Lathera 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
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