
JOHN J. LATERRA, M.D., Ph.D.

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DEMOGRAPHIC INFORMATION

Current Appointments:

Professor

Departments of Neurology, Neuroscience and Oncology

The Johns Hopkins University School of Medicine and the Kennedy Krieger Research Institute

Director, Division of Neuro-Oncology

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The Johns Hopkins University School of Medicine

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Education and Training:

B.A.	1977	Washington University, Missouri, Physics
Ph.D.	1982	Case Western Reserve University, Ohio, Microbiology
M.D.	1984	Case Western Reserve University, Ohio, Medicine
Intern	1984-85	Department of Internal Med., Univ. of Michigan, Ann Arbor
Resident	1985-87	Department of Neurology, Univ. of Michigan, Ann Arbor
Chief Resident	1987-88	Department of Neurology, Univ. of Michigan, Ann Arbor

Professional Experience:

Instructor	Department of Neurology, The Johns Hopkins University School of Medicine and the Kennedy Krieger Research Institute, 1988-1990
Assistant Professor	Department of Neurology, The Johns Hopkins University School of Medicine and the Kennedy Krieger Research Institute, 1990-1994
Assistant Professor	Departments of Neuroscience and Oncology, The Johns Hopkins University School of Medicine, 1992-1994
Associate Professor	Departments of Neurology, Oncology & Neuroscience, The Johns Hopkins University School of Medicine and the Kennedy Krieger Research Institute, 1994-2002
Director	Neuro-Oncology Division, Department of Neurology, The Johns Hopkins Hospital, 1994-present

Professor Departments of Neurology, Oncology & Neuroscience, The Johns Hopkins University School of Medicine and the Kennedy Krieger Research Institute, 2002-present
Faculty Graduate Program in Pathobiology, 2003-present
Co-Director Brain Cancer Program, Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, 2005-present

RESEARCH ACTIVITIES

Publications:

Peer-reviewed scientific articles:

1. Cashore WJ, Horwich A, Laterra J and Oh W: Effect of postnatal age and clinical status of newborn infants on bilirubin-binding capacity. *Biol Neonate* 32:304-309, 1977. PMID: 610767
2. Laterra J, Ansbacher R and Culp L: Glycosaminoglycans that bind cold insoluble globulin in cell-substratum adhesion sites of murine fibroblasts. *Proc Natl Acad Sci, USA* 77:6662-66, 1980. PMID: 6256752; PMCID: PMC350347
3. Laterra J and Culp L: Differences in hyaluronate binding to plasma and cell surface fibronectins. *J Biol Chem* 257:719-726, 1982. PMID: 6274861
4. Laterra J, Silbert J and Culp L: Cell surface heparin sulfate mediates some adhesive responses of glycosaminoglycan-binding matrices, including fibronectin. *J Cell Biol* 96:112-123, 1983. PMID: 6219115; PMCID: PMC2112250
5. Laterra J, Norton E, Izzard C and Culp L: Close and focal contact adhesions of fibroblasts adhering to heparin sulfate-binding substrata (fibronectin or platelet factor 4). *Exp Cell Res* 146:15-27, 1983.
6. Lark M, Laterra J and Culp L: Close and focal contact adhesions of fibroblasts to a fibronectin-containing matrix. *Fed Proc* 44:394-403, 1985. PMID: 3917945
7. Laterra J, Gebarski S and Sackallares J: Transient amnesia resulting from vertebral artery dissection. *Stroke* 19:98-101, 1988. PMID: 3336908
8. Fulton AM, Laterra JJ, and Hanchin CM: Prostaglandin E2 receptor heterogeneity and dysfunction in mammary tumor cells. *J Cell Physiol* 139:93-99, 1989. PMID: 2540214
9. Laterra J, Guerin C and Goldstein GW: Astrocytes induce neural microvascular endothelial cells to form capillary-like structures *in vitro*. *J Cell Physiol* 144:205-215, 1990. PMID: 2380251
10. Guerin C, Laterra J, Hruban R, Brem H, Drewes LR and Goldstein GW: The glucose transporter and blood-brain barrier of human brain tumors. *Ann Neurol* 28:758-765, 1990. PMID: 2178329
11. Laterra J and Goldstein GW: Astroglial induced *in vitro* angiogenesis: requirements for RNA and protein synthesis. *J Neurochem* 57:1231-1239, 1991. PMID: 1716663
12. Wolff JE, Laterra J and Goldstein GW: Steroid inhibition of neural microvessel morphogenesis *in vitro*: Receptor mediation and astroglial dependence. *J Neurochem* 58:1023-1032, 1992. PMID: 1371144

13. Guerin C, Laterra J, Drewes L, Brem H and Goldstein GW: Vascular expression of glucose transporter in experimental brain neoplasms. *Am J Path* 140:114-125, 1992. PMID: 1739134; PMCID: PMC1886421
14. Guerin C, Wolff J, Laterra J, Drewes LR, Brem H and Goldstein GW: Vascular differentiation and glucose transporter expression in rat gliomas: Effects of steroids. *Ann Neurol* 3:481-487, 1992. PMID: 1596083
15. Guerin C, Laterra J, Masnyk T, Golub LM and Brem H: Selective endothelial growth inhibition by tetracyclines that inhibit collagenase. *Biochem Biophys Res Comm* 188:740-745, 1992. PMID: 1445318
16. Laterra J, Bressler JP, Indurti RR, Olivi L and Goldstein GW: Inhibition of astroglia-induced endothelial differentiation by inorganic lead: A role for protein kinase C. *Proc Natl Acad Sci USA* 89:10748-10752, 1992. PMID: 1438272; PMCID: PMC50419
17. Wolff JEA, Guerin C, Laterra J, Bressler J, Indurti RR, Brem H and Goldstein GW: Dexamethasone reduces vascular density and plasminogen activator activity in 9L rat brain tumors. *Brain Res* 604:79-85, 1993. PMID: 7681348
18. Laterra J, Indurti RR and Goldstein GW: Regulation of *in vitro* glia-induced microvessel morphogenesis by urokinase. *J Cell Physiol* 158:317-324, 1994. PMID: 8106568
19. Arosarena O, Guerin C, Brem H, and Laterra J: Endothelial differentiation in intracerebral and subcutaneous experimental gliomas. *Brain Res* 640:98-104, 1994. PMID: 8004469
20. Lal B, Cahan MA, Couraud P-O, Goldstein GW, and Laterra J: Development of endogenous β -galactosidase and autofluorescence in rat brain microvessels: implications for cell tracking and gene transfer studies. *J Histochem Cytochem*, 42:953-956, 1994. PMID: 8014479
21. Lal B, Indurti RR, Couraud P-O, Goldstein GW and Laterra J: Endothelial cell implantation and survival within experimental gliomas. *Proc Natl Acad Sci USA*, 21:9695-9699, 1994. PMID: 7937875; PMCID: PMC44883
22. Mankowski JL, Spelman JP, Ressetar HG, Strandberg JD, Laterra J, Clements JE and Zink MC: Neurovirulent SIVmac replicates productively in CNS endothelial cells *in vivo* and *in vitro*. *J Virology*, 68:8202-8208, 1994.
23. Rao JS, Sawaya R, Gokaslan ZL, Yung WKA, Goldstein GW and Laterra J: Modulation of serine proteinases and metalloproteases during morphogenic glial-endothelial interactions. *J Neurochem*, 66:1657-1664, 1996. PMID: 8627323
24. Rosen EM, Laterra J, Joseph A, Jin L, Way D, Witte M, Weinard M and Goldberg I: Scatter factor expression and regulation in human glial tumors, *Intl J Cancer*, 67:248-255, 1996. PMID: 8760595
25. Johnston P, Nam M, Indurti, RR, Mankowski JL, Wilson MA and Laterra J: Delivery of human fibroblast growth factor-1 gene to brain by modified rat brain endothelial cells, *J Neurochem*, 67:1643-1652, 1996. PMID: 8858949

26. Nam M, Johnston P, Lal B, Indurti R, Wilson MA and Laterra J: Endothelial cell-based anti-tumor gene delivery to brain, *Brain Res*, 73:161-170, 1996. PMID: 8883866
27. Laterra J, Nam M, Rosen E, Rao JS, Lamszus K Goldberg ID and Johnston P: Scatter factor/hepatocyte growth factor gene transfer enhances glioma growth and angiogenesis *in vivo*, *Lab Invest*, 76:565-577, 1997 PMID: 9111517
28. Lamszus K, Jin L, Fuchs A, Shi E, Chowdhury S, Yao Y, Polverini PJ, Laterra J, Goldberg ID, Rosen EM: DNA-mediated transfer of scatter factor to human breast carcinoma cells induces increased tumor growth in mammary fat pads of nude mice, *Lab Invest*, 76:339-353, 1997.
29. Laterra J, Rosen E, Nam M, Ranganathan S, Fielding K and Johnston P: Scatter factor/hepatocyte growth factor expression enhances human glioblastoma tumorigenicity and growth. *Biochem Biophys Res Com*, 235:743-747, 1997. PMID: 9207232.
30. Wolff JE, Molenkamp G, Hotfilder M and Laterra J: Dexamethasone inhibits glioma-induced formation of capillary like structures *in vivo*. *Klin Padiatr*, 209:275-277, 1997. PMID: 9293462
31. Rosen EM, Lamszus K, Laterra J, Polverini PJ, Rubin JS and Goldberg ID: HGF/SF in angiogenesis. *Ciba Found Symp*, 212:215-226, 1997. PMID: 9524773.
32. Lamszus K, Liang J, Laterra J, Zagzag D, Way D, Witte M, Goldberg ID and Rosen EM: Scatter factor promotes motility of human glioma and neuromicrovascular endothelial cells, *Intl J Cancer*, 75:19-28, 1998. PMID: 9426685.
33. Hossain MA, Fielding KE, Trescher WH, Ho T, Wilson MA and Laterra J: Human FGF-1 gene delivery protects against quinolinate-induced striatal and hippocampal injury in neonatal rats. *Eur J Neurosci*, 10:2490-2499, 1998. PMID: 9767380.
34. Sills Jr. AK, Williams JI, Tyler BM, Epstein DS, Davis JD, Sipos EP, McLane MP, Pitchford S, Schonwetter B, Gannon FH, Kinney WA, Chao TL, Donowitz M, Laterra J, Zasloff M and Brem H: Squalamine inhibits angiogenesis and solid tumor growth *in vivo* and perturbs embryonic vasculature. *Cancer Res*, 58:2784-2792, 1998. PMID: 9661892.
35. Book AA, Fielding KE, Kundu N, Wilson MA, Fulton AM and Laterra JJ: IL-10 gene transfer to intracranial 9L glioma: tumor inhibition and cooperation with IL-2. *J Neuroimmunol*, 92:50-59, 1998. PMID: 9916879.
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38. Abounader R, Ranganathan S, Lal B, Fielding K, Book A, Dietz H, Burger P and Laterra J: Reversion of human glioblastoma malignancy by U1snRNA/ribozyme targeting of scatter factor/hepatocyte growth factor and c-met gene expression. *J Natl Cancer Inst*, 91:1548-1556, 1999. PMID: 10491431.

39. Mankowski JL, Queen SE, Kirstein LM, Spelman JP, Laterra J, Simpson IA, Adams RJ, Clements JE and Zink MC: Alterations in CNS glucose transporter 1 expression in SIV-infected macaques: Correlates with encephalitis and duration of infection. *J Neurovirol*, 5:695-702, 1999. PMID: 10602410.
40. Fan S, Ma YX, Wang J, Yuan R, Meng Q, Cao Y, Laterra J, Goldberg ID, Rosen EM: The cytokine scatter factor inhibits apoptosis and enhances DNA repair by a common mechanism involving signaling through phosphatidyl inositol 3' kinase. *Oncogene*, 19:2212-2223, 2000. PMID: 10822371.
41. Guerin C, Luddy C, Abounader R, Lal B and Laterra J. Glioma inhibition by HGF/NK2, an antagonist of scatter factor/hepatocyte growth factor. *Biochem Biophys Res Comm*, 273:287-293, 2000. PMID: 10873600.
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43. Hossain MA, Bouton ML, Pevsner J and Laterra J: Induction of vascular endothelial growth factor in human astrocytes by lead: Involvement of a PKC/AP-1 dependent and HIF-1 independent signaling pathway. *J Biol Chem*, 275:27874-27882, 2000. PMID: 10882716.
44. Abounader R, Ranganathan S, Kim BYS, Nichols C and Laterra J: Signaling pathways in the induction of c-met expression by its ligand SF/HGF in human glioblastoma, *J. Neurochem*, 76:1497-1508, 2001. PMID: 11238734.
45. Jiang WG, Grimshaw D, Lane J, Martin TA, Abounader R, Laterra J and Mansel RE. A hammerhead ribozyme suppresses expression of HGF/SF receptor, c-met, and reduces migration and invasiveness of breast cancer cells. *Clin Cancer Res*, 7:2555-2562, 2001. PMID: 11489839.
46. Bouton MLS, Hossain MA, Frelin LP, Laterra J and Pevsner J: Microarray analysis of differential gene expression in lead treated astrocytes. *Tox Appl Pharm*, 176:34-53, 2001.
47. Gao M, Fan S, Goldberg ID, Laterra J, Kitsis RN and Rosen EM. Hepatocyte growth factor/scatter factor (HGF/SF) blocks the mitochondrial pathway of apoptosis signaling in breast cancer cells. *J Biol Chem*, 24:24, 2001. PMID: 11571297.
48. Abounader R, Lal B, Luddy C, Koe G, Davidson B, Rosen EM and Laterra J. *In vivo* targeting of SF/HGF and c-met expression via U1snRNA/ribozymes inhibits glioma growth and angiogenesis and promotes tumor apoptosis, *FASEB J*, express, published online 11/29/01, 10.1096/fj.01-0421fje. PMID: 11729097.
49. Walter KA, Hossain MA, Luddy C, Goel N, Reznik TE and Laterra J: Scatter factor/hepatocyte growth factor stimulation of glioblastoma cell cycle progression through G1 is c-Myc dependent, and independent of p27 suppression cdk2 activation, or E2F1-dependent transcription. *Mol Cell Biol*, 22:2703-2715, 2002. PMID: 11909963; PMCID: PMC133707.

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51. Lucey BP, Tihan T, Pomper MG, Olivi A and Laterra J. Spinal meningioma causing diffuse leptomeningeal enhancement. *Neurology*, 60:350-351, 2003. PMID: 12552066.
52. Herynk MH, Stoelzing O, Reinmuth N, Parikh NU, Abounader R, Laterra J, Radinsk Ellis LM, and Gallick GE. Down-Regulation of c-Met Inhibits Growth in Liver of Human Colorectal Carcinoma Cells. *Cancer Research*, 63:2990-2996, 2003. PMID: 12782608
53. Jiang WG, Grimshaw D, Martin TA, Davis G, Parr C, Watkins G, Lane J, Abounader R, Laterra J, and Mansee RE. Reduction of stromal fibroblast-induced mammary tumor growth by retroviral ribozyme transgenes to HGF/SF and its receptor, c-Met. *Clin Cancer Research*, 9:4274-4281, 2003. PMID: 14519655.
54. Zhou J, Lal B, Wilson DA, Laterra J, Van Zijl PCM. Amide protein transfer (APT) contrast for imaging of brain tumors. *Magnetic Resonance in Medicine*, 50:1120-1126, 2003. PMID: 17924591.
55. Su W, Gutmann DH, Perry A, Abounader R, Laterra J and Sherman LS. CD44-Independent Hepatocyte Growth Factor/c-Met Autocrine Loop Promotes Malignant Peripheral Nerve Sheath Tumor Cell Invasion *In Vitro*. *Glia*, 45:297-306, 2004. PMID: 14730703.
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59. Madden SL, Stan R-V, Cook BP, Nacht M, Jiang Y, Dufault MR, Zhang X, Zhang W, Walter-Yohrling J, Rouleau C, Akmaev VR, Wang CJ, Weber WD, Boutin P, Roy A, Shankara S, Callahan MR, Cao X, St. Martin, TB, Roberts BL, Teicher BA, Klinger KW, Lucey B, Laterra J and Walter KA. Vascular gene expression in non-neoplastic and malignant brain. *Am. J. Pathol.*, 165:601-608, 2004. PMID: 10962435.
60. Hossain MA, Russell JC, Miknyoczki B, Lal B and Laterra J. Vascular endothelial growth factor mediates vasogenic edema formation in acute lead encephalopathy. *Annals of Neurology*, 55:660-667, 2004. PMID: 15122706
61. Abounader R, Reznik T, Russell JC, Rosen EM, and Laterra J. Regulation of c-Met dependent gene expression by PTEN. *Oncogene*, 23:9173-9182, 2004. PMID: 15516982
62. Fan S, Gao, M, Meng Q, Laterra JJ, Symons MH, Coniglio S, Pestell RG, Goldberg ID and Rosen EM. Role of NF- κ B signaling in hepatocyte growth factor/scatter factor mediated cell protection. *Oncogene*, 24:1749-1766, 2005. PMID: 15688034

63. Lal B, Xia S, Abounader R and Laterra J. Targeting the c-Met pathway potentiates glioblastoma responses to γ -radiation. *Clin Cancer Res*, 11:4479-4486, 2005. PMID: 15958633
64. Xia S and Laterra J. Sensitization of glioma cells to Fas-dependent apoptosis by chemotherapy-induced oxidative stress. *Cancer Res*, 65:5248-5255, 2005. PMID: 15958570
65. Abounader R and Laterra J. Scatter factor/hepatocyte growth factor in brain tumor growth and angiogenesis. *Neuro-Oncology*, 7:436-451, 2005. PMID: 16212809; PMCID: PMC1871724
66. Li Y, Lal B, Kwon S, Fan X, Saldanha U, Reznik TE, Kuchner E, Eberhart C, Laterra J and Abounader R. The scatter factor/hepatocyte growth factor: c-Met pathway in human embryonal CNS tumor malignancy. *Cancer Res*, 54:9355-9362, 2005. PMID: 16230398
67. Dilmanian FA, Qu Y, Liu S, Cool CD, Gilbert J, Hainfeld JF, Kruse CA, Laterra J, Lenihan D, Nawrocky MM, Pappas G, Sze CI, Yuasa T, Zhong N, Zhong Z and McDonald JW. X-ray microbeams: Tumor therapy and central nervous system research. *Nucl Instrum Methods Phys Res A*, 548:30-37, 2005. PMID: 17369874; PMCID: PMC1828126
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69. Kim KJ, Wang L, Su, YC, Gillespie GY, Salhotra A, Lal B and Laterra J. Systemic anti-hepatocyte growth factor monoclonal antibody therapy induces the regression of intracranial glioma xenografts. *Clin Cancer Res*, 12(4):1292-1298, 2006. PMID: 16489086
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71. Russell JC, Szufliita N, Khatri R, Laterra J, and Hossain MA. Transgenic expression of human FGF-1 protects against hypoxic-ischemic injury in perinatal brain by intervening at caspase-XIAP signaling cascades. *Neurobiology of Diseases*, 22:677-680, 2006. PMID: 16635575
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73. Xu J, Gao M, Fan S, Meng Q, Goldberg ID, Abounader R, Ransom H, Laterra J, Rosen, EM. Effect of Akt inhibition on scatter factor-regulated gene expression in DU-145 human prostate cancer cells. *Oncogene*, 2006, 26:2925-2938, 2007. PMID: 17099727
74. Fan S, Meng Q, Laterra J, Rosen EM. Ras effector pathways modulate scatter factor-stimulated NF-kappaB signaling and protection against DNA damage. *Oncogene*, 26:4774-4796, 2007 PMID: 17297451
75. Gerber DE, Laterra J. Emerging monoclonal antibody therapies for malignant gliomas. *Expert Opin Investig Drugs*, 16:477-494, 2007. PMID: 17371196
76. Xia S, Li Y, Rosen EM, Laterra J. Robotoxic stress sensitizes glioblastoma cells to death receptor induced apoptosis: Requirements for c-jun NH2-terminal kinase and Bim, *Mol Cancer Res*, 5: 783-792, 2007. PMID: 17699104

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79. Salhotra A, Lal B, Laterra J, Sun PZ, van Zijl PCM, Zhou J. Amide proton transfer imaging of 9L gliosarcoma and human glioblastoma xenografts. *NMR in Biomed*, October 10, 2007 [Epub]. PMID: 17924591. PMCID: PMC2943209.
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81. Li Y, Guessous F, Johnson E, Eberhart C, Li X, Shu Q, Fan S, Lal B, Laterra J, Schiff D, Abounader R. Functional and molecular interactions between the HGF/c-Met pathway and c-Myc in large cell medulloblastoma. *Laboratory Investigation*, 88:98-111, 2008 PMID: 18059365
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83. Donahue MJ, Blakeley JO, Zhou J, Pomper MG, Laterra J, van Zijl PCM. Evaluation of human brain tumor heterogeneity using MRI with multiple T1-based signal weighting approaches. *Magnetic Resonance in Medicine*. 59:336-344, 2008 PMID: 18183606 PMCID: PMC2860187.
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102. Chaichana KL, Kosztowski T, Niranjan A, Olivi A, Weingart JD, Laterra J, Brem H, Quiñones-Hinojosa A. Prognostic significance of contrast-enhancing anaplastic astrocytomas in adults. *J. Neurosurg.* 113:286-92, 2010. PMID: 20302391.
103. Coon V, Laukert T, Pedone CA, Laterra J, Kim KJ, Fults DW. Molecular therapy targeting sonic hedgehog and hepatocyte growth factor signaling in a mouse model of medulloblastoma. *Mol Cancer Ther.* 9:2627-36, 2010. Epub 2010 Aug 31. PMID: 20807782,. PMCID: PMC2937075
104. Bhang HC, Gabrielson KL, Laterra J, Fisher PB, Pomper MG; Tumor-Specific Imaging through Progression Elevated Gene-3 Promoter-Driven Gene Expression, *Nat Med* 2011 Jan;17(1):123-9, Epub Dec 12 2010. PMID: 21151140. PMCID: PMC3057477.
105. Zhou J, Tryggestad E, Wen Z, Lal B, Zhou T, Grossman R, Yan K, Wang S, Fu D-X, Blakeley J, Ford E, Tyler B, Laterra J, and van Zijl PCM, Differentiation between glioma and radiation necrosis using molecular magnetic resonance imaging of endogenous proteins and peptides. *Nature Med.*2011 Jan; 17(1): 130-4. Epub Dec 19 2010. PMID: 21170048, PMCID: PMC3058561.
106. Ying M, Wang S, Sang Y, Sun P, Lal B, Goodwin CR, Guerrero-Cazares H, Quinones-Hinojosa A, Laterra J, Xia S. Regulation of glioblastoma stem cells by retinoic acid: role for Notch pathway inhibition. *Oncogene.* 2011. Aug 4; 30(31):344-67. Doi: 10.1038/onc.2011.48Epub2011 Mar7. PMID: 21383690. PMCID: PMC3955956.
107. Wen PY, Schiff D, Cloughesy TF, Razier JJ, Laterra J, Smitt M, Wolf M, Onliner KS, Anderson A, Zhu M, Loh E, Reardon DA. A phase II study evaluating the efficacy and safety of AMG 102 (rilotumumab) in patients with recurrent glioblastoma. *NeuroOncology.* 2011 Apr; 13(4): 437-46. Epub Feb 4 2011. PMID: 21297127; PMCID: PMC3064694.
108. Ying M, Sang Y, Li Y, Guerrero-Cazares H, Quinones-Hinojosa A, Vescove AL, Eberhart CG, Xia S, Laterra J. Kruppel-like family of transcription factor 9, a differentiation-associated transcription factor, suppresses Notch1 signaling and inhibits glioblastoma-initiating stem cells. *Stem Cells.* 2011 Jan; 29(1):20-31. Doi: 10.1002/stem.561. PMID: 21280156. PMCID: PMC3516843
109. Li Y, Li A, Glas M, Lal B, Ying M, Sang Y, Xia S, Trageser D, Guerrero-Cázares H, Eberhart CG, Quiñones-Hinojosa A, Scheffler B, Laterra J. c-Met signaling induces a reprogramming network and supports the glioblastoma stem-like phenotype. *Proc Natl Acad Sci U S A.* 108:9951-6, 2011. PMID: 21628563; PMCID: PMC3116406.
110. Goodwin, CR, Lal B, Ho S, Woodard CL, Zhou X, Taeger A, Xia S, Laterra J. PTEN reconstitution alters glioma responses to c-Met pathway inhibition. *Anticancer Drugs.* 2011 Oct; 22 (9): 905:12. PMID: 21654317; PMCID: PMC3164392.
111. Wang S, Chen Y, Lal B, Ford E, Tryggestad E, Armour M, Yan K, Laterra J, Zhou J. Evaluation of radiation necrosis and malignant glioma in rat models using diffusion tensor MR imaging. *J. Neurooncology.* 2012 Mar; 107(1):51-6. PMID: 21948114; PMCID: PMC3268835.

112. Li Y, Laterra J. Cancer stem cells: distinct entities or dynamically regulated phenotypes? *Cancer Res.* 72:576-80, 2012. PMID: 22298594 PMCID: PMC3271803.
113. Wang SD, Rath P, Lal B, Richard JP, Li Y, Goodwin CR, Laterra J, Xia S. EphB2 receptor controls proliferation/migration dichotomy of glioblastoma by interacting with focal adhesion kinase. *Oncogene.* 2012 Feb 6 (Epub ahead of print) PMID: 2231282 PMCID: PMC3349801.
114. Wu Y, Richard JP, Wang SD, Rath P, Laterra J, Xia S. Regulation of Glioblastoma Multiforme Stem-like Cells by Inhibitor of DNA Binding Proteins and Oligodendroglial Lineage-associated Transcription Factors. *Cancer Science.* 2012 Jun; 103(6):1028-37. PMID: 22380883. PMCID: PMC3855314.
115. Rosca EV, Lal B, Koskimaki JE, Popel AS, Laterra J. Collagen IV and CSC Chemokine-derived Antiangiogenic Peptides Suppress Glioma Xenograft Growth. *Anticancer Drugs.* 2012 April 9 (Epub ahead of print) PMID: 22495619; PMCID: PMC3384759.
116. Rath P, Lal B, Ajala O, Li Y, Xia S, Kim J, Laterra J. In Vivo c-Met Pathway Inhibition Depletes Human Glioma Xenografts of Tumor-Propagating Stem-Like Cells. *Transl Oncol*, 2013 Apr 6(2): 104-11. Epub 2013 Apr 1. PMCID: PMC3612837
117. Zhou J, Zhu H, Lim M, Blair L, Quinones-Hinjos A, Messina SA, Ebert CG, Pomper MG, Laterra J, Barker PB, van Zijl PC, Blakeley JO. Three-Dimensional Amide Proton Transfer MR Imaging of Gliomas: Initial experience and Comparison with Gadolinium Enhancement. *J. Magn Reson Imaging*, 2013 Feb 25. Doi: 10.1002/jmri.24067. Epub ahead of print PMID: 23440878. PMCID: PMC3664658.
118. Zhang Y, Pullambhatla M, Laterra J, Pomper MG. Influences of Bioluminescence Imaging Dynamics by D-luciferin Uptake and Efflux Mechanisms. *Mol Imaging.* 2012 Nov-Dec; 11(6):499-506. PMID: 23084250.
119. Woodward C, Goodwin RC, Wan J, Xia X, Newman R, Hu J, Zhang J, Hayward SD, Qian J, Laterra J, Zhu H. Profiling the Dynamics of a Human Phosphoproteome Reveals New Components in HGF/c-Met Signaling. *PLOS ONE* 10.1371/journal.pone.007267. 09 Sept 2013. PMCID: PMC3759380.
120. Sun P, Xia S, Lal B, Shi X, Yang KS, Watkins PA, Laterra J. Lipid metabolism enzyme ACSVL3 supports glioblastoma stem cell maintenance and tumorigenicity. *BMC Cancer.* 2014 Jun 4;14:401. doi: 10.1186/1471-2407-14-401. PMID: 24893952. PubMed - in process
121. Lopez-Bertoni H, Lal B, Li A, Caplan M, Guerrero-Cazares H, Eberthart C, Quinones-Hinojosa, Glas M, Scheffler B, Laterra J*, Li Yu*. DNMT-dependent suppression of microRNA regulates the induction of GBM tumor-propagating phenotype by Oct4 and Sox2. *Oncogene.* In Press, 2014.
122. Ying, M, Tilghman J, Wei Y, Guerrero-Cazares H, Quinones-Hinojosa A, Ji H, Laterra J. KLF9 Inhibits Glioblastoma Stemness through Global Transcription Repression and Integrin- α 6 Inhibition. *J. Biol. Chem.*, In Press, 2014.

Book Chapters:

1. Laterra J, Lark M and Culp L: Functions of fibronectin, hyaluronate and heparan proteoglycans

in substratum adhesion of fibroblasts. In: The Extracellular Matrix. (Hawkes S and Wang J, eds) Acad Press, pp 197-207, 1982.

2. Culp L, Laterra J, Lark M, Neyth R and Tobey S: Heparan sulfate proteoglycans as mediators of some adhesive responses and cytoskeletal reorganization of cells on fibronectin matrices:

- Independent versus cooperative functions. In: Functions of the Proteoglycans. (Hascall V, ed.) Pitman Press, pp 158-183, 1986.
3. Laterra J, Stewart P and Goldstein G: Development of the blood-brain barrier. In: Neonatal and Fetal Medicine - Physiology and Pathophysiology. (Polin RA and Fox WW, eds.) WB Saunders, pp 1525-1531, 1991.
 4. Laterra J, Wolff JE, Guerin C and Goldstein GW: Formation and differentiation of brain capillaries. In: Bioavailability of Drugs to the Brain and the Blood-Brain Barrier, NIDA Research Monograph, (Frankenheim and Brown, eds) DHHS Publ., pp 73-86, 1992.
 5. Laterra J and Goldstein GW: The blood-brain barrier *in vitro* and in culture. In: Handbook of Experimental Pharmacology, Vol 103, "Physiology and Pharmacology of the Blood-brain Barrier". (Bradbury MWB, ed) Springer-Verlag, pp 417-437, 1992.
 6. Laterra J and Goldstein GW: Brain microvessels and microvascular cells *in vitro*. In: The Blood-Brain Barrier. (Pardridge WM, ed) Raven Press, pp 1-24, 1993.
 7. Laterra J, Indurti RR and Goldstein GW: Plasminogen activation and astroglial-induced neural microvessel morphogenesis. In: Frontiers in Cerebral Vascular Biology: Transport and its Regulation. (Drewes LR and Betz LA, eds) Plenum Press, pp 189-199, 1993.
 8. Wiengart JW, Laterra J and Brem H: Growth factors and angiogenesis. In: Bailliere's Clinical Neurology/Cerebral Gliomas. (Yung WKA, ed) Baillier Tindall, London, Vol 5, pp 307-318, 1996.
 9. Guerin C and Laterra J: Regulation of angiogenesis in malignant gliomas. In: Control of Angiogenesis. (Goldberg ID and Rosen EM, eds) Birkhauser Verlag, Boston, pp 47-64, 1996.
 10. Laterra J: Glioma. In: Current Therapy in Neurologic Diseases. Vol 5, (Johnson, RT and Griffin J, eds) BC Decker, Philadelphia, pp 245-254, 1996.
 11. Laterra J, Stewart P and Goldstein G: Development of the blood-brain barrier. In: Neonatal and Fetal Medicine - Physiology and Pathophysiology. 2nd Edition, (Polin RA and Fox WW, eds.) WB Saunders, pp 2103-2109, 1997.
 12. Sills AK, Sipos EP, Laterra J and Brem H: Angiogenesis inhibition in the treatment of CNS tumors. In: Advances in Neuro-Oncology. Vol II, (Kornblith P and Walker, eds), Futura Publishing Co., Inc., Armonk, New York, pp 81-96, 1997.
 13. Laterra J, Keep RF, Betz AL and Goldstein GW: Blood-brain-cerebrospinal fluid barriers. In: Basic Neurochemistry. (Siegel, Agranoff, Albers, Fisher and Uhler, eds), Lippincott-Raven, pp 671-690, 1998.
 14. Olivi A, Laterra J: Brain tumors in women. In: Neurologic Disease in Women (Kaplan P, ed), Demos Publishing, New York, pp 355-360, 1998.
 15. Laterra J and Goldstein, GW: Ventricular organization of cerebrospinal fluid: The blood-brain barrier, brain edema, and hydrocephalus. In: Principles of Neural Science. 4th Edition, (Kandel E, Schwartz J and Jessell T, eds) McGraw Hill, New York, NY, pp 1288-1301, 2000.

16. Rosen EM, Lamszus K, Fan S, Goldberg ID, Laterra J and Polverini PJ: Scatter factor as a tumor angiogenesis factor. In: Angiogenesis in Health and Disease. (Rubanyi GM, ed) Marcel Dekker, New York, pp 145-156, 2000.
17. Laterra J: Book Review: Practical neuro-oncology: A guide to patient care. In Neuro-Oncology. (McAllister LD, Ward JH, Schulman SF and DeAngelis LM eds) Butterworth-Heinemann, Boston, [serial online], Doc. 02-001BR, June 19, 2002 URL <http://neuro-oncology.mc.duke.edu>.
18. Laterra J and Brem H: Primary brain tumors in adults. In: Diseases of the Nervous System, 3rd edition (Asbury, McDonald, McKhann, Goadsby and McArthur, eds) Saunders, Philadelphia, pp 1431-1447, 2002.
19. Abounader R, Montgomery R, Dietz H and Laterra J: Design and Expression of Chimeric U1/Ribozyme Transgenes. In: Methods in Molecular Biology: Catalytic Nucleic Acid Protocols, (Slood M, ed) Human Press, Totowa, NJ, pp 209-219, 2004.
20. Laterra J and Goldstein, GW: The blood-brain barrier and cerebrospinal fluid. In: Principles of Neural Science. 5th Edition, (Kandel E, Schwartz J and Jessell T, eds) Elsevier, New York, NY, 2005.
21. Olivi A and Laterra J. Neuro-Oncology in Women. In: Neurologic Disease in Women, 2nd Ed (Kaplan P., ed.) Demos Publishing, New York, 2005.
22. Elinzano H and Laterra J. Epidural spinal cord compression and leptomeningeal metastasis. In: Current Therapy in Neurologic Disease. (Johnson, Griffin and McArthur, eds) Mosby Elsevier, Philadelphia pp 268-273, 2006.
23. Blakeley J and Laterra J. Neurotoxicities. In: Current Cancer Therapeutics. 5th Edition (Ettinger and Donehower, eds) 2008.
24. Dunbar E and Laterra J. Malignant glioma. In: Current Cancer Therapeutics. 5th Edition (Ettinger and Donehower, eds) 2008.
25. Blakeley J and Laterra J. Neurotoxicities. In: Current Cancer Therapeutics. 5th Edition (Ettinger and Donehower, eds) 2008
26. Wolf D. and Laterra J. Salvage Theory for High-Grade Gliomas. In: Controversies. In Neuro-Oncology: Best Evidence Medicine for Brain Tumor Surgery. (Quinones-Hinojosa and Raza), Thieme Publishing, 2012.
27. Laterra J and Goldstein, GW: The blood-brain barrier, Choroial Plexus and Cerebrospinal Fluid. In: Principles of Neural Science. 5th Edition, (Kandel E, Schwartz J, Jessell T, Siegelbaum S, and Hudspeth AJ. eds) McGraw Hill, New York, NY, pp 1565-1580, 2013

Clinical Research Protocols:

1995-1998: Double blind randomized trial of the anti-progestational agent mifepristone in the treatment of unresectable meningioma, Phase III. (Institutional Principal Investigator)

1999-2000: Phase II study of suramin and concurrent radiation therapy in newly diagnosed glioblastoma multiforme (Principal Investigator)

2000-2004: A Phase I/II study of col-3 administered on a continuous daily oral schedule in participants with recurrent high-grade astrocytoma (Institutional Principal Investigator)

2007-present: A multicenter open-label, single agent two stage-phase 2 study to evaluate the efficacy and safety of AMG102 in subjects with advanced malignant glioma (Institutional Principal Investigator).

Inventions/Patents/Copyrights:

1. Immortalized Cerebral Endothelial Cells for the Treatment of Disorders of the Central Nervous System (Lignees Immortalisees De Cellules Endotheliales Cerebrales Et Leurs Applications Au Traitement De Differents Troubles Ou Maladies Primaires Et Secondaires, Neurologiques Ou Psychiatriques), 1994
2. Brain Endothelial Cell Expression Patterns, 2002 and 2003.
3. Systemic Antibody Therapy for Central Nervous System Malignancies; Application #60/694,491
4. Combination of HGF Inhibitor and Hedgehog Inhibitor to Treat Cancer; Application #61/044,444 and 61/044,440.
5. Bioluminescence Imaging-Based Screening Assay and Inhibitors of ABCG2; Application Serial #13/129,037; Intl. App. # PCT/US2009/064200

Extramural Sponsorship:

Previous Grants:

- | | |
|-----------|---|
| 1988-1989 | Charles H. Dana Foundation Fellowship |
| 1989-1994 | NINDS, Clinician Investigator Development Award
"Adhesion Molecules of Brain Microvessel Cells"
John Laterra, M.D., Ph.D. - P.I.
Total Direct Costs: \$380,500 |
| 1990-1992 | The Juvenile Diabetes Foundation International
"Angiogenesis <i>in vitro</i> : Influence of perivascular astrocytes and effects of hyperglycemia".
John Laterra, M.D., Ph.D. - P.I.
Total Direct Costs: \$90,910 |
| 1992-1999 | Research Training in Neuro-Oncology for Neurosurgeons, NCI
Dr. Stuart Grossman - P.I. |
| 1993-1996 | Brain Tumor Center Feasibility Grant, NIH P20 CA60172
"Vascular Biology of Brain Tumors"
Henry Brem - P.I. |

Total Direct Cost: \$283,618
Project 1 - "Biochemistry of Brain Tumor Microvessel Development"
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$56,999

1993-1997 NIH, 1 PO1 NS32208
 "SIV-CNS Disease: A Model of AIDS Encephalopathy"
 Janice Clements, Ph.D. - P.I.
 Total Direct Cost: \$3,814,204
Project 1 - "Pathogenesis of SIV Disease"
 John Laterra, M.D., Ph.D. - Co-Investigator
 Total Direct Cost: \$202,661

1993-1994 NIH P30 CA06973
 "Toward Brain Tumor Gene Therapy"
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$24,100

1994-1995 Wendy Will Case Cancer Fund
 "Biochemistry of Brain Tumor Microvessel Development"
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$19,000

1994-1996 United Cerebral Palsy Research & Educational Foundation, Inc.
 "Brain Microvessel Formation and Maturation"
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$86,957

1994-1997 Lucille P. Markey Charitable Trust
 "Gene Delivery to Brain"
 John Laterra, M.D., Ph.D. - P.I.
 Annual Direct Cost: \$165,248 (specifically designated for faculty recruitment)

1995-1996 Elsa U. Pardee Foundation
 "Endothelial-Based Gene Delivery to Brain Tumors"
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$102,125

1995-1999 NIH, RO1 NS33728-03
 "Toward Brain Tumor Gene Therapy"
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$496,527

1995-2008 NIH, R01 NS32148-13
 "Biochemistry of Brain Tumor Microvessel Development"
 John Laterra, M.D., Ph.D. - P.I.
 Role: PI - 35% effort
 Total Direct Cost: \$2,643,136

- 1997-1998 United Cerebral Palsy, R-717-97
 “Neonatal Neuroprotection by Endothelial Cell-Based Neurotrophin Gene Delivery”
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$43,478
- 1997-1999 American Heart Association, MDSG4497
 “Neonatal Neuroprotection by Endothelial Cell-Based Neurotrophin Gene Delivery”
 John Laterra, M.D., Ph.D. - P.I.
 Total Direct Cost: \$60,000
- 1998-2003 NIH, PO1 ES08131-05
 “Molecular Mechanisms of Inorganic Lead Neurotoxicity”
 Gary W. Goldstein, M.D. - Program Leader
 Role: PI, Project 2 - 25% total effort
Project 2, Mechanisms of Pb²⁺-induced Cerebral Microvasculopathy
 Total Direct Cost: \$520,949
- 1999-2003 NIH, RO1 HL 64408-04
 “Therapeutic Angiogenesis for Ischemic Diseases of Brain”
 John Laterra, M.D., Ph.D., - P.I.
 Role: PI - 15% effort
 Total Direct Cost: \$653,379
- 2000-2002 NIH, R01 NS32148-06S1
 “Biochemistry of Brain Tumor Microvessel Development” - Research Infrastructure - Supplement 1
 John Laterra, M.D., Ph.D. - P.I.
 Role: PI
 Total Direct Cost: \$51,355
- 2000-2002 NIH, R01 NS32148-06S2
 “Biochemistry of Brain Tumor Microvessel Development” - MicroArray Analysis - Supplement 2
 John Laterra, M.D., Ph.D. - P.I.
 Role: PI
 Total Direct Cost: \$50,000
- 2001 Dorthea Haus Ross Foundation
 “Cooperative Ribozyme and Cytotoxic Therapy in Malignant Glioma”
 John Laterra, M.D., Ph.D. – P.I.
 Role: PI
 Total Costs: \$21,000
- 2003-2006 Whitaker Foundation
 “Development of Novel Magnetic Resonance Imaging and Spectroscopy Methodologies for Tumor Detection”
 Jinyuan Zhou, Ph.D. – P.I.
 Role: Co-PI – No effort/salary support
 Total Direct Cost: \$34,551

2003-2013 1 R01 NS43987-06
 "Mechanisms of Chemo/Radioresistance in Human Gliomas"
 John Laterra, M.D., Ph.D., - P.I.
 Role: PI - 20% effort
 Current Year Direct Cost: \$390,869
 Total Direct Cost: \$1,954,345

2004-2012 NCI CA-06-003
 "Enhancement of Brain Tumor Immunotherapy by Fas-L RNAi"
 Alex Olivi, M.D. – P.I.
 Role: Co-Investigator - 9%
 Current Year Direct Cost: \$100,000

2004-2008 NIH NCI CA-06-003
 "Enhancement of Brain Tumor Immunotherapy by Fas-L RNAi"
 Alex Olivi, M.D. – P.I.
 Role: Co-PI – 2% effort
 Total Direct Cost:

2005-2006 Dana Foundation
 "Transcription Factor Activity Imaging in Brain and Brain Tumors"
 John Laterra, M.D., Ph.D. - P.I.
 Role: PI - 5% effort
 Total Direct Cost: \$100,000

2005-2007 Galaxy Biotech
 "Novel Monoclonal Antibody Therapy for Cancer"
 K. Jin Kim, Ph.D. – P.I.
 Role: Subcontract P.I. – 5% effort
 Total Direct Cost: \$58,151
 Total Direct Cost: \$118,047

2005-2007 Goodwin Gift Commonwealth Support
 Charles Rudin – P.I.
 Role: Co-PI
 Total Direct Cost: \$156,000

2005-2008 Brain Tumor Society
 "Anti-HGF Monoclonal Antibody Therapy for Malignant Glioma"
 John Laterra, M.D., Ph.D. – P.I.
 Role: PI - 10% effort
 Total Direct Cost: \$200,000

2006-2009 Brain Tumor Funders' Collaboration
 "Tumor Stem Cell-Based Drug Discovery for Adult and Pediatric Glioma"
 John Laterra, M.D., Ph.D. – P.I.
 Role: P.I. - 20% effort
 Total Direct Cost: \$1,800,000

- 2007-2012 NIH, R01 CA129192-03
 “Neutralizing Anti-HGF mAbs and CNS Malignancy”
 John Laterra, M.D., Ph.D. – P.I.
 Role: PI - 20% effort
 Current Year Direct Cost: \$269,482
 Total Direct Cost: \$821,094
- 2008-2011 Maryland Technology Development Corporation (TEDCO)
 “Molecular Mechanisms of Tumor Propagation by Human Glioblastoma Stem Cells”
 John Laterra, M.D., Ph.D. – P.I.
 Role: PI - 20% effort
 Current Year Direct Cost: \$252,780
 Total Direct Cost: \$779,303
- 2009-2012 James S. McDonnell Foundation
 Regulatory Mechanisms and Therapeutic Targeting of Brain Cancer “Stem Cells”
 John Laterra, M.D., Ph.D. – P.I.
 Role: Collaborative Project Manager/Leader - 15% effort
 Current Direct Cost: \$150,000
 Total Direct Cost: \$734,205
- 2009-2013 NIH NIBIB 1R01EB009731
 “Amide Proton Transfer (APT) MRI of Brain Tumors at 3T and 7T”
 Jinyuan Zhou, Ph.D. – P.I.
 Role: Co-Investigator—4.4%
 Current Year direct costs: \$250,000
 Total direct cost: \$1,000,000
- 2009-2014 NIH R01 NS062043
 “Acyl-CoA synthetase ACSVL3 in Malignant Glioma: Metabolism and Oncogenic Cellular Signaling”
 Paul Watkins, Ph.D. – P.I.
 Role: Co-Investigator – 3% effort
 Current Year Direct Cost: \$250,000
 Total Direct Cost: \$1,250,000
- 2011-2014 Maryland Technology Development Corporation (TEDCO)
 “Regulation of Neural and Neoplastic Stem Cells by Kruppel-like Transcription Factors”
 John Laterra, M.D., Ph.D. - P.I.
 Role: PI - 15% effort
 Current Year Direct Cost: \$200,000
 Total Direct Cost: \$600,000
- 2011-2013 Galaxy Biotech
 “Monoclonal Antibody to FGF2 for Treatment of Hepatocellular Carcinoma and Other Cancers”
 K. Jin Kim, Ph.D. - P.I.
 Role: Subcontract P.I. - 5% effort

Current Year Direct Cost: \$50,000
Total Direct Cost: \$100,000

2012-2014 2012-MSCRFE-0135-00
“Global Prediction of Transcription Factor Binding Sites in Lineage Specific Neural Differentiation”
Hongkai Ji, Ph.D. – P.I.
Role: Subcontract P.I. - 5% effort
Current Year Direct Cost: \$61,000
Total Direct Cost: \$110,000

2012-2014 1R21EB015555-01
“Molecular MRI of Radiation Necrosis in Preclinical Models”
Jinyuan Zhou, Ph.D. – P.I.
Role: Subcontract P.I. - 5% effort
Current Year Direct Cost: \$12,000
Total Direct Cost: \$24,000

Present Grants:

1997-2017 2 P30 CA006973-45
Regional Oncology Research Center
PI: Dr. Nelson
Role: Co-Director, Brain Cancer Program - 3% effort
Current Year Direct Cost: \$8,000

1999-present Research Training in Neuro-Oncology
Dr. Stuart Grossman - P.I.
Role: co-Director
Current Year Direct Cost:

2011-2016 NIH 1R01NS076759
“Suppression of Glioblastoma Stem Cells by Kruppel-Like Factor 9”
John Laterra, M.D., Ph.D. - P.I.
Role: PI - 20% effort
Current Year Direct Cost: \$220,000

2012-2017 Total Direct Cost: \$860,000
1R01NS073611
“Brain Cancer Stem Cell Reprogramming by c-Met”
John Laterra, M.D., Ph.D. - P.I.
Role: PI - 20% effort
Current Year Direct Cost: \$218,000
Total Direct Cost: \$1,090,000

Contracts:

- 1997-2009 Neurotech S.A.
 “Cell-Based Immunotherapy for Gliomas”
 Total Cost: \$148,887
- 2000-2006 Neuronyx, Inc.
 Stem Cell Therapy for Gliomas
 Total Cost: \$200,000
- 2005-2006 Abbott Laboratories
 “Abbott Oncology Program”
 Total Cost: \$5,791

EDUCATIONAL ACTIVITIES**Lecturer:**

- Neuropathology course for second year medical students - 1996
- Introduction to Clinical Neurology for neurology residents - 1994, 1995, 1996, 1998, 1999, 2000
- The Biology of Cancer graduate student course, University of Maryland at Baltimore - 1996
- Neurology Clinical Skills Course, The Johns Hopkins University School of Med - 1996, 1997, 1998, 1999, 2001
- Medical Student Interest Group in Neurology - Nov. 1999
- Model Systems in Brain Tumor Research, JHU Pathobiology Course, 2005

Research Fellows Trained:

		<u>Subsequent Position</u>
Christopher Guerin, M.D.	6/89 - 7/91	Assistant Professor The Johns Hopkins University
Johannes Wolff, M.D.	3/90 - 8/91	Assistant Professor Pediatric Neuro-Oncology, Tom Baker Cancer Center, Calgary, Canada
Martino Nam, Ph.D.	12/94 - 6/96	Lab Chief Korean National Institute of Health
Ahamed Hossain, Ph.D.	12/95 - 4/97	Assistant Professor The Johns Hopkins University
Mohamed Zaiou, Ph.D.	2/96 - 12/96	Assistant Professor, Department of Biochemistry, MCP Hahnemann University

Adam Book, Ph.D.	8/96 - 8/98	Private Industry
Daniel Bowers, M.D.	7/97 - 6/99	Assistant Professor, Department of Oncology, Univ. of Texas Southwest Medical Center at Dallas
Roger Abounader, M.D., Ph.D. (Recipient of: American Association for Cancer Research AFLAC scholar)	1/97 - 12/99	Associate Professor University of Virginia
Bachchu Lal, Ph.D.	9/92 - 11/94 5/98 - 6/01	Faculty Kennedy Krieger Research Institute
Kevin Walter, M.D. (First prize for Best Poster Presentation, 2nd International Congress Genetics in Neuroscience, Terni, Italy, July, 2000; Recipient of: National Cancer Institute Research Fellowship)	7/99 - 6/01	Instructor, Neurosurgery The Johns Hopkins University
Heinrich Elinzano, M.D.	7/03 - 6/04	Private Industry
Shuli Xia, Ph.D	8/02 - 6/06	Faculty, Hugo W. Moser Research Institute at Kennedy Krieger, Inc.
Amandeep Salhotra, M.D., Ph.D.	7/04 - 5/06	Private Industry
David Gerber, M.D.	7/05 - 6/07	Assistant Professor University of Texas Southwest Medical Center, Dallas, TX
Peng Sun, Ph.D	2/06 - 8/10	Instructor MD Anderson Cancer Center
Yunqing Li	4/04—5/05—Present	Faculty, Hugo W. Moser Research Institute at Kennedy Krieger, Inc.
Mingyao Ying, Ph.D.	8/08 - present	Faculty, Hugo W. Moser Research Institute at Kennedy Krieger, Inc.
Yanjue Jim Wu, Ph.D.	11/08 - 11/09	
Prakash Rath, Ph.D.	1/10 - 10/11	United States FDA Postdoctoral Fellow
Jean Philippe Richard, Ph.D.	4/10 - 7/12	Research Associate Johns Hopkins School of Medicine

Hernando Lopez-Bertoni, Ph.D. 5/12 – present

Doctoral Students Trained:

Courtney Rory Goodwin 2006 – present
Jessica Tilghman 2011 – present
Han Sun 2014-present

Undergraduate and Medical Students Trained:

Oneida Arosarena

Mitchell A. Cahan - recipient of: Lucien J. Rubinstein Memorial Award from the American Brain Tumor Assoc for most outstanding brain tumor research).

Tang Ho - recipient of: Howard Hughes Summer Research Scholarship Fulbright Scholarship Barry M. Goldwater Scholarship Admission to The Johns Hopkins School of Medicine

Betty Kim (McMaster University School of Medicine-student) - Summer 1999

Raquel Gomez (Johns Hopkins Medical Student) - Summer, 2000

Brendan Lucey (Johns Hopkins Medical Student) - 2002

Gisela Vargas (Johns Hopkins Undergraduate Student) - 2003 - 2005

Rory Goodwin (Johns Hopkins Medical Student) – 2005-2010

Yang Li (Johns Hopkins Undergraduate) - 2005-2010

Niedl Goel (University of Michigan Undergraduate)- 2000-2002

Claire Nichols (University of Louisiana Undergraduate)

June Tibaleka (Johns Hopkins Undergraduate Student) - 2006

Jeffrey Neal (Johns Hopkins Undergraduate Student) - 2006

Linda Zhou (Johns Hopkins Undergraduate Student) 2008—2011

KilSung Yang (Johns Hopkins Undergraduate Student) 2009—2011

Michal Caplan (Johns Hopkins Undergraduate Student) 2012—present

Nicole Michelson (Johns Hopkins Undergraduate Student) 2013—present

Sigal Landau (Johns Hopkins Undergraduate Student) 2014—present

Minority Summer Internship Mentor:

Raquel Gomez, 1998 - recipient of: Admission to The Johns Hopkins School of Medicine
Clare Nichols, 1999
Fanta Powell, 2001
Neda Perwez, 2013

Thesis Committees:

External Examiner for Doctoral Thesis of Jocelyn Holash. Title: The Role of Astrocytes in the Induction and Maintenance of Blood-Brain Barrier Characteristics. Department Anatomy and Cell Biology, Univ. Toronto, Nov. 1993.

Chairman - Preliminary oral examine for Johns Hopkins University doctoral candidate, Kyung-ah Kim. Thesis title: Activation of Immediate Early Genes After Exposure to Lead: Mechanism of Activation in PC12 Cells and Rat Brain. Degree awarded in June, 1999.

Member of Doctoral Thesis Committee for Joseph Mankowski, Program in Human Genetics, The Johns Hopkins University School of Medicine. Thesis title: The Role of Macrophage-Tropic SIV in Organ-Specific Disease. Degree Awarded in May, 1998

Member of Doctoral Thesis Committee, Jean B. Regard, Program in Cellular and Molecular Medicine, The Johns Hopkins School of Medicine, Active
Member of Doctoral Oral Examination Committee, Gerard Beaudoin, Department of Neuroscience, The Johns Hopkins School of Medicine, June, 2001

Doctoral Oral Exam Committee - Marianeli Rodriguez, Dept of Neuroscience Johns Hopkins University, 2008

Doctoral Thesis Committee - Karisa Scheck, Dept. of Neuroscience, Johns Hopkins University, 2008—2010

Doctoral Thesis Committee – Emily Cheng, University of Maryland, 2011

Doctoral Thesis Committee – Kah Jing Lim, Dept. of Pathobiology, Johns Hopkins University, 2011

Doctoral Thesis Committee – Evan Noch Dept. of Neuroscience, Temple University School of Medicine, 2011.

Doctoral Thesis Committee – Jonathan Coulter, Dept. of Environmental Health Sciences, Johns Hopkins Bloomberg School of Public Health, 2011—2014

Editorial Activities:

Editorial Board:

Neuro-Oncology (2001-present)

The Neurologist (2005-2013)

Investigative Ophthalmology and Visual Science (Guest Editorial Board Member, 2002)

Section Editor: (Neoplastic Disorders)
Neurobiology of Disease (Elsevier)

Journal Peer Review Activities:

American Journal of Pathology
Annals of Neurology
Brain Research
Cancer
Cancer Research
Carcinogenesis
Circulation
Current Eye Research
Glia
In Vitro Cellular and Developmental Biology
International Journal of Cancer
Investigative Ophthalmology & Visual Sciences
Journal of Cellular Physiology
Journal of Cerebral Blood Flow and Metabolism
Journal of Clinical Investigation
Journal of Histochemistry and Cytochemistry
Journal of Neurochemistry
Journal of Neuro-Oncology
Laboratory Investigation
Life Sciences
Molecular and Cellular Biology
Nature Medicine
The Neurologist
Neurology
Oncogene
Pediatric Research
Proceedings National Academy of Sciences, USA
Skull Base Surgery

CLINICAL ACTIVITIES

Certification:

1988-present	Maryland Medical License
10/90	American Board of Psychiatry and Neurology

Service Responsibilities:

Specialty: Neuro-Oncology and General Neurology

Role: Director of Div'n of Neuro-Oncology, Dept. of Neurology, The Johns Hopkins Hospital

Time Commitment: Attend on General Neurology Service 1mo/yr
Outpatient Neuro-Oncology and General Neurology Clinic 1/2 day per week
Consult in Neuro-Oncology when requested at in-patient and out-patient settings

ORGANIZATIONAL ACTIVITIES:

Institutional Administrative Appointments:

1987-1988	Chief Resident, Department of Neurology, University of Michigan
1988-1990	Biomedical Research Support Grant Review Committee, Kennedy Krieger Research Institute

- 1994-1997 Chairman, Joint Kennedy Krieger Institute and Johns Hopkins Department of Neuroscience Faculty Search Committee
- 1993-2006 Appointments and Promotions Committee, Depts. of Neurology and Neurosurgery, The Johns Hopkins School of Medicine
- 1999-2005 Chairman, Joint Kennedy Krieger Institute and Johns Hopkins Department of Neuroscience Faculty Search Committee
- 2000-2010 Member, Neurobehavioral Research Unit Protocol Review Subcommittee, The Johns Hopkins General Clinical Research Center
- 2011-2013 Appointments and Promotions Committee, Depts. of Neurology and Neurosurgery, The Johns Hopkins School of Medicine
- 2013-present Chairman, Appointments and Promotions Committee, Depts. of Neurology and Neurosurgery, The Johns Hopkins School of Medicine

Professional Societies:

- American Academy of Neurology, 1988 - present
- American Association for the Advancement of Science, 1988 - present
- American Association for Cancer Research, 1996 - present
- American Society for Cell Biology, 1992 - 1996
- American Society for Neurochemistry, 1992 - present
- American Neurological Association, 1995 - present
- Society for Neuro-Oncology, 1996 - present

Advisory Committees:

- 1995-present Scientific Advisory Council, American Brain Tumor Association
- 1995-1997 Scientific Issues Subcommittee, Neuro-Oncology Committee of the American Academy of Neurology
- 1995 - 1998 Board of Directors, Maryland Alliance of PKU Families, Inc.
- 1996 Co-chair Neuro-Oncology: Experimental Studies Session, American Academy of Neurology, San Francisco
- 1997 Abstract Committee: Second Annual Meeting of the Society for Neuro-Oncology
- 1998 Session Chair, Chair and discussant: Basic Research Poster Discussion Session, Third Annual Scientific meeting of the Society for Neuro-Oncology, San Francisco, CA
- 2008 Avastin Future Indications GBM Regional Series Advisory Board for Genentech USA, Inc., New York, NY
- 2010 Glioblastoma National Advisory Board for Genentech, Inc., San Francisco, CA
- 2011-present U.S.-Canada Brain Tumor Advisory Board, Merck Sharp and Dohme Co.
- 2012-present Scientific Advisor, James S. McDonnell Foundation
- 2012-present Scientific Advisory Board, Alcyone Lifesciences, Inc.

Review Groups:

- 1990-1991 NIH - Visual Sciences C Study Section, ad hoc member
- 1996-1997 NIH - Neurological Sciences 3 Study Section, ad hoc member
- 1997-1998 NIH - Neurological Sciences 3 Study Section, ad hoc member
- 1998 NIH - Brain Disorders and Clinical Neurosciences - 3 Study Section, ad hoc member
- 1999 NCI - Program Project Review Group, "Brain Tumor Gene Therapy"
- 1999 NCI - Program Project Review Group, "Integrative Pathophysiology of Solid Tumors"

1999	NCI - Program Project Review Group, "Brain Tumor Therapeutic Efficacy by Quantitative MR"
2000	NCI - Program Project Review Group, "Brain Tumors Therapeutic Efficacy by Quantitative MR"
2002	NCI - Cancer Center Support Grant Review Group
2002	FDA - Orphan Drug Development Program (Neuro-Oncology)
2000-2005	NIH - Clinical Neuroimmunology and Brain Tumors (CNBT); formerly Brain Disorders and Clinical Neurosciences - chartered member
2004	NIH - Special Emphasis Panel, ZRG1BDCN-J - Chairperson
2006	NIH - BDCN-N Conflict Study Section
2007	NIH BDCN-Y Study Section, Committee Chairperson
2008	NIH BDCN-Y Study Section, Committee Chairperson
2009	NIH BDCN-Y Study Section, Committee member
2010	NIH BDCN-A Study Section, Distinguished Stage 2 Editor
2011	NIH CAMP Study Section, review committee member
2012	NH BMCT Study Section, review committee member
2013	NIH ZRG1 Study Section, review committee member
2013-present	NIH BMCT Study Section, review committee member
2014	Brain Tumor Funders Collaborative

British Columbia Health Research Foundation
National Research Council of Canada
Alberta Heritage Foundation for Medical Research
Hong Kong Research Grants Council
Italian Association for Cancer Research ([2011](#), [2012](#), [2014](#))

RECOGNITION

Honors, Awards:

1977	Phi Beta Kappa
1984	Alpha Omega Alpha
1978-1985	NIH Grant Recipient Medical Scientist Training Program

1996	The Johns Hopkins School of Medicine Nominee and National Finalist of Burroughs Wellcome Scholar in Experimental Therapeutics Award
2007	Baltimore Magazine "Top Doctors"
2007	Castle Connolly America's Top Doctors for Cancer

Invited Talks:

Oct 1989	Laboratory of Developmental Biology and Anomalies, National Institutes of Health
Apr 1991	Department Internal Medicine, Div. Infectious Diseases, University of Maryland School of Medicine, Baltimore, MD
Jun 1991	XV International Symposium on Cerebral Blood Flow and Metabolism, Miami, "Molecular and Cellular Approaches to the Cerebral Vasculature"
Jul 1992	Frontiers in Cerebral Vascular Biology, Duluth, MN
Apr 1993	Natl. Institutes on Aging Workshop, Bethesda, MD, "Endothelial Changes in Age-Related Vascular Disease"
Apr 1993	The 1st International Workshop on Diabetic Retinopathy, Milton S. Hershey Medical Center, Hershey, PA
Sep 1993	International Union Against Cancer, Study Group Meeting on Angiogenesis,

Woods Hole, MA

Nov 1993 Department of Anatomy and Cell Biology, University of Toronto

Dec 1993 Department of Neurology, University of Maryland, Baltimore

Feb 1994 National Institutes of Health, Neurosurgical Branch, Bethesda, MD

Apr 1994 North American Vascular Biology Organization, Anaheim, CA

May 1994 Topics in Clinical Medicine, The Johns Hopkins University School of Medicine, Baltimore, MD, "Paraneoplastic Syndromes"

Nov 1994 Grand Rounds, Department of Internal Medicine, The Johns Hopkins University School of Medicine, Baltimore, MD, "Neoplastic Meningitis"

Nov 1994 Department of Biochemistry & Molecular Biology, University of Minnesota, Duluth, "Endothelial-Based Gene Delivery in Brain Tumors"

Dec 1994 Seattle Brain Tumor Workshop, Fred Hutchinson Cancer Research Center, Seattle, WA, "Endothelial-Based Gene Delivery in Gliomas"

Apr 1995 Conference on Therapeutic Response of Normal & Malignant Neural Tissues, MD Anderson Cancer Center, Round Top, TX, "Endothelial-Based Ex Vivo Gene Delivery to Brain Tumors"

Aug 1996 Maryland Alliance for PKU Families, Fairlee, MD, "Post-prandial and fasting phenylalanine blood levels in children with PKU"

Mar 1997 Town Meeting, American Brain Tumor Association, Baltimore, MD, "Treatment of Malignant Gliomas"

Apr 1997 Experimental Biology '97, New Orleans, LA, "Development of blood-brain barrier morphology *in vitro*: astrocyte and endothelial cell interactions"

May 1997 MD Anderson Cancer Center 5th Annual, Round Top Workshop on Gene Therapy, Round Top, TX, "Neuroprotection by FGF-1 mediated gene transfer"

Mar 1998 Neurosurgery Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD, "Growth factor pathways as molecular targets for brain tumor therapy"

Mar 1998 Invited Lecturer, Neurotech, SSA., Paris, France, "Cell-based gene transfer to brain and brain tumors"

May 1998 Guest faculty, University of South Florida College of Medicine, Tampa, FL, "Scatter factor/hepatocyte growth factor in gliomas malignancy and angiogenesis. New approaches to brain tumor therapy satellite meeting on angiogenesis and invasiveness"

May 1998 Visiting Professor, Tom Baker Cancer Center, Southern Alberta Cancer Program; Calgary, Alberta, Canada, "Growth factor pathways as molecular targets for brain tumor therapy"

May 1998 Visiting Professor, Tom Baker Cancer Center, Calgary, Alberta, Canada, "Emerging concepts and strategies for brain tumor therapy"

Jun 1998 Neurovirology Research Laboratory, School of Public Health, The Johns Hopkins University, Baltimore, MD, "Emerging concepts and strategies for brain tumor therapy"

Jun 1998 Biannual meeting, New Approaches to Brain Tumor Therapy CNS Consortium, Boston, MA, "Scatter factor/hepatocyte growth factor targeting for glioma therapy"

Aug 1998 University of Rochester School of Medicine, Rochester, NY, "Growth factor pathways as molecular targets for brain tumor therapy"

Oct 1998 Neurotech, SSA., Paris, France, "Cytokine gene delivery to intracranial gliomas"

Nov 1998 Chair and discussant: Basic Research Poster Discussion Session, Third Annual Scientific meeting of the Society for Neuro-Oncology, San Francisco, CA

Feb 1999 Saturday Medicine Grand Rounds, The Johns Hopkins School of Medicine, Baltimore, MD, "CNS Lymphoma"

May 1999 New Approaches to Brain Tumor Therapy Consortium, Univ. of Alabama, Birmingham, AL, "Combination Suramin/Radiation Therapy Phase I Trial for Human Glioblastoma"

May 1999 New Approaches to Brain Tumor Therapy Consortium, Univ. of Alabama, Birmingham, AL, "Cell-based IL-2 Gene Therapy for Recurrent Glioblastoma"

Jun 1999 Visiting Scientist, University of Pittsburgh School of Medicine Cancer Center, Pittsburgh, PA

Oct 1999 Brookhaven National Laboratory, Upton, NY, "Autocrine/Paracrine Pathways and Brain Tumor Malignancy"

Feb 2000 Department of Comparative Medicine, The Johns Hopkins School of Medicine, Baltimore, MD, "SF/HGF Cell Signaling and Glioma Malignancy"

Mar 2000 Johns Hopkins Singapore Video Conference, "Paraneoplastic Syndromes"

Apr 2000 Genentech, Inc., San Francisco, CA, "SF/HGF:c-met Signaling in Glioma: Mechanisms of Tumor Progression and Therapeutic Implications"

Apr 2000 Abbott Laboratories, Abbott Park, IL, "SF/HGF and c-met Signaling and Glioma Malignancy"

Jul 2000 2nd Terni International Congress on Genetics in Neuroscience, Terni, Italy

Jul 2000 MD Anderson Cancer Center, Houston, TX, "The Emerging Role of Autocrine/Paracrine SF/HGF:c-met Signaling in Glioma Malignancy"

Jan 2001 Neuronix, Inc., Malvern, PA, "Novel Therapeutic Approaches for Primary Brain Tumors"

Feb 2001 Grand Rounds, Department of Neurology, The Johns Hopkins School of Medicine, Baltimore, MD

Feb 2001 Grand Rounds, Neuro-Oncology Program, Moffitt Cancer Center, Tampa, FL

Mar 2001 Neurotumor Club, New Orleans, LA, "Effects of c-met Signaling on Glioblastoma Cell Growth and Survival",

Apr 2001 Grand Rounds, Department of Neurosurgery, The Johns Hopkins School of Medicine, Baltimore, MD, "Cell Growth and Death Pathways in Glioblastoma"

Jul 2001 NeoPharm, Inc., Waukegan, IL, "Applications of U1/Ribozymes to Brain Tumor Therapy"

Oct 2001 Cephalon, Inc., West Chester, PA, "SF/HGF: c-met Signaling in Gliomas: Mechanisms of Tumor Progression and Therapeutic Implications"

Dec 2001 Grand Rounds, Department of Neurology, University of Pennsylvania School of Medicine, Philadelphia, PA, "Growth Factor Pathways in Malignant Gliomas: Therapeutic Implications"

Jun 2002 Symposium on The Future of Stem Cells: Science, Policy and Ethics, The Johns Hopkins School of Medicine, Baltimore MD, "Stem Cells and Brain Tumors"

Sep 2002 Department of Neurology, The Johns Hopkins School of Medicine, Baltimore, MD, "Emerging Contributions of Molecular Therapeutics in Neuro-Oncology"

Dec 2002 Grand Rounds, Division of Cancer Biology, University of Illinois College of Medicine at Peoria, Peoria, IL, "Autocrine/Paracrine Growth Factor Pathways in Glioma Malignancy"

Jan 2003 Clinical Neurosciences Seminar Series, The Johns Hopkins School of Medicine, Baltimore, MD, "Targeting Receptor Tyrosine Kinases in Gliomas"

Feb 2003 Grand Rounds Department of Pediatric Neurology, The Johns Hopkins School of Medicine, Baltimore, MD, "Proliferative and Survival Pathways in Malignant Glioma"

Jul 2003 American Brain Tumor Association, Chicago, IL, "Benign Brain Tumors: Adjuvant Therapy"

Feb 2004 Brain Tumor Treatment and Research Seminar Series, University of Alabama at

- Birmingham, "Hepatocyte Growth Factor and c-Met: Novel Therapeutic Targets in Malignant Glioma"
- Apr 2005 Grand Rounds Department of Neurology, The Johns Hopkins Hospital, Baltimore MD, "Advances in Targeted Therapeutics for Malignant Brain Tumors"
- May 2005 Department of Comparative Medicine, The Johns Hopkins School of Medicine, Baltimore, MD, "Toward Targeted Therapeutics for Brain Cancer"
- Jun 2005 Department of Neurosciences Critical Care, The Johns Hopkins Hospital, Baltimore, MD, "Progress Toward Targeted Therapeutics in Neuro-Oncology"
- Jun 2005 Updates in Neuro-Oncology, Arezzo (Italy), "Targeting the HGF:c-Met Pathway in Glioma"
- Oct 2005 Congress for Neurological Surgery, Boston, MA, "Novel Near-Term Targeted Therapeutics for Primary Brain Tumors"
- Oct 2005 Merck Research Laboratories, Boston, MA, "Hepatocyte Growth Factor and c-met: Novel Therapeutic Targets in Malignant Glioma"
- Nov 2005 Current concepts in cancer pain management, The Johns Hopkins Hospital, Baltimore, MD, "New Agents for Neuropathic Pain"
- May 2006 The Lombardi Comprehensive Cancer Center, Georgetown University, Washington, DC., "Talk Honoring Dr. Eliot Rosen Endowed Chair"
- May 2006 Grand Rounds Department of Neurology, Bayview Medical Center, Baltimore, MD, "Update in Neuro-Oncology"
- May 2006 Lecture for Program in Pathobiology Graduate Education, The Johns Hopkins School of Medicine, Baltimore, MD, "Brain Tumor Modeling"
- Apr 2007 Grand Rounds, Department of Neurology, University of Southern California, Los Angeles, "Primary Brain Cancer: New Concepts and Targeted Therapeutics"
- Jun 2007 American Brain Tumor Association, Chicago, IL, "How are new cancer treatments developed? The view from the bench"
- Jun 2007 Updates in Neuro-Oncology, 2nd International meeting; Special lecture, Cortona, Italy, "Antibody-based therapeutics for CNS malignancies"
- Dec 2007 Grand Rounds, Department of Neurosciences, Medical University of South Carolina, Charleston, SC, "Primary Brain Cancer: New Concepts and Targeted Therapeutics"
- Mar 2008 Clinical Neurosciences Seminar, The Johns Hopkins Hospital, Baltimore, MD, "Recent Developments Toward Targeted Therapeutics for Malignant Brain Tumors"
- May 2008 Grand Rounds, Department of Neurology, Thomas Jefferson School of Medicine, Philadelphia, PA, "Primary Brain Cancer: New Concepts and Targeted Therapeutics".
- May 2008 Keynote Address: 35-year Anniversary of the American Brain Tumor Association, Chicago, IL
- May 2008 Grand Rounds, Feist-Weiller Cancer Center, Louisiana State University School of Medicine, Shreveport, LA, "Primary Brain Cancer: New Concepts and Targeted Therapeutics"
- Sep 2008 Plenary presentation. Epigenetics: A Window to Cancer Stem Cell Biology. 7th Annual International Neuro-Oncology updates, Baltimore, MD.
- Dec 2008 Grand Rounds, Department of Neurology, Johns Hopkins School of Medicine, "Primary Brain Cancer: Recent Advances and Targeted Therapeutics"
- Mar 2009 Plenary presentation. "Primary Brain Malignancies: From Oncogenic Mechanisms to New Therapeutics", American Society for Neurochemistry, Charlotte, SC
- Jun 2009 Session Chair. Neuro-Oncology, Head and Neck Tumors. 2nd Annual World

Cancer Congress, Beijing, China

Jun 2009 Invited Speaker. "Primary Brain Malignancies: From Oncogenic Mechanisms to New Therapeutics", 2nd Annual World Cancer Congress, Beijing, China

Sep 2009 Invited Speaker: 8th Annual International Neuro-Oncology Conference. "Signaling in Gliomas". Columbus, Ohio

Nov 2009 Invited Speaker. "Primary Brain Malignancies: Oncogenic Mechanisms and Emerging Therapeutics", Institute for Cancer Research (IRCC), Candiolo (Turin), Italy

May 2010 "Glioblastoma Stem Cell Reprogramming by c-Met." 18th International Asilomar Conference on Brain Tumor Research and Therapy, Travemunde, Germany.

Jul 2010 "Regulation of Cancer Stem Cells by c-Met." Seminar Series on Stem Cells, Development and Cancer, Johns Hopkins Oncology Center.

Jan 2011 "The GBM Stem Cell Phenotype: Receptor Tyrosine Kinases and Reprogramming Transcription Factors" Memorial Sloan Kettering Cancer Center, New York, NY

Feb 2011 "Glioblastoma Stem Cells: Differentiation and Oncogenic Reprogramming" Department of Environmental Health Sciences, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Mar 2011 "Therapeutic Targets in Brain Cancer Stem Cells" Brain Tumor Funders Collaborative, Phoenix, AZ

May 2011 Visiting Professor and Dept. of Neuroscience Lecture "Glioblastoma Stem Cells: Differentiation and Oncogenic Reprogramming" Temple University School of Medicine

Jun 2011: Turino Talk

Oct 2011 NCI CTEP Early Drug Development Meeting "Is c-Met/HGF a Novel Therapeutic Target in GBM", Bethesda, MD.

Oct 2011 The 16th Samsung International Symposium on Molecular Medicine. "c-Met and Tumor Cell Reprogramming: Seoul, Korea

Mar 2012 cMet and Tumor Cell Reprogramming. Department of Neurosurgery, Ohio State Medical Center, Columbus, OH.

Jul 2012 KLF9, a differentiation-associated transcription factor suppresses Notch 1, Integrin-alpha6, and glioma-initiating cells. 19th International Conference on Brain Tumor Research and Therapy. Niagara Falls, Canada

Sep 2012 Targeting c-Met in Glioblastoma. 11th Annual International Neuro-Oncology Updates, Baltimore MD.

Oct 2012 Malignant Glioma: What Else Should We Be Worried About? Brain Tumor Funders Collaborative Workshop, St. Louis, MO

Nov 2012 Regulation of Neoplastic Cell Stemness in Glioblastoma. Department of Pharmacology and Molecular Biology, University of Massachusetts, Worcester, MA

Nov 2012 Malignant Glioma: Advances in Molecular Classification and Experimental Therapeutics. Department of Neurology Grand Rounds, Baltimore MD

Feb 2014 Molecular Determinates of Glioma Stemness and Tumor Initiating Phenotypes. Grand Rounds, Pediatric Oncology. MD Anderson Cancer Center.

July 2014 Epigenetic Regulation of GBM Cell Stemness and Tumor Propagating Capacity by OCT4 and Sox2. 20th International Brain Cancer Reserch and Therapy. Lake Tahoe CA.

Sep 2014 c-Met Signaling in GBM: Advances in Basic Science. 13th Annual International Updates in Neuro-Oncology Symposium, Boston MA.

OTHER PROFESSIONAL ACCOMPLISHMENTS

Industry/Biotechnology:

Co-founder: 1995, Neurotech, SA (Paris, France), a biotechnology company whose focus is the development of cell-based therapies for CNS and retinal disorders.