CURRICULUM VITAE JERROLD L. BOXERMAN, MD, PhD, FACR, FASFNR

Business Address:	Rhode Island Hospital Department of Diagnostic Imaging 593 Eddy Street Providence, RI 02903
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EDUCATION	
Undergraduate:	Massachusetts Institute of Technology Cambridge, MA S.B. (<i>Electrical Engineering</i>) June 1989
Graduate:	Massachusetts Institute of Technology Cambridge, MA S.M. (<i>Electrical Engineering and Computer Science</i>) June 1989
	Massachusetts Institute of Technology Cambridge, MA Ph.D. (<i>Medical Engineering</i>) June 1995
Medical School:	Harvard Medical School Boston, MA M.D. June 1996
POST-GRADUATE TRAINING	
Research Fellowship:	The Johns Hopkins Hospital Baltimore, MD Post-doctoral Research Associate Diagnostic Radiology, MRI Division 1996-1997
Residency:	The Johns Hopkins Hospital Baltimore, MD Diagnostic Radiology 1997-2001 (Chief Resident, 2000)

Fellowship: The Johns Hopkins Hospital Baltimore. MD Neuroradiology October 2000-February 2001, July 2001-August 2002 HONORS AND AWARDS Massachusetts Institute of Technology Cambridge, MA 1987 Inductee, Tau Beta Pi Engineering Honor Society 1987 Inductee, Eta Kappa Nu Electrical Engineering Honor Society 1989-1992 National Science Foundation Graduate Scholarship Massachusetts General Hospital, NMR Center Charlestown, MA 1992, 1994 Johnson & Johnson Research Fellowship 1993 Clement Vaturi Research Fellowship Harvard Medical School Boston, MA 1995 Honors in core medicine, medicine sub-internship, surgery, radiology, neurology, and obstetrics and gynecology clerkships Johns Hopkins Department of Radiology Baltimore, MD Chief Resident, Diagnostic Radiology 2000 Brown University / Rhode Island Hospital Providence, RI 2003-2004 Teacher of the Year, Diagnostic Radiology Residency Program, Brown University / Rhode Island Hospital 2016 Recognized as a Fellow, American College of Radiology 2023 Dean's Excellence in Teaching Award, Warren Alpert Medical School of Brown University 2023 Recognized as a Fellow, American Society of Functional Neuroradiology

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

2001-Present	American Board of Radiology (Lifetime certificate)
2002-Present	State of Rhode Island, Medical License No. MD10844
2002-Present	State of Massachusetts, Medical License No. 213422
2004	American Board of Radiology, initial Certificate of Added Qualification in <i>Neuroradiology</i>
2014	American Board of Radiology, Recertification of Added Qualification in <i>Neuroradiology</i>

ACADEMIC APPOINTMENTS

2002-2003	Assistant Professor of Diagnostic Imaging, Clinical Educator Track Alpert Medical School, Brown University
2004-2012	Assistant Professor of Diagnostic Imaging, Teaching Scholar Track Alpert Medical School, Brown University
2012-2019	Associate Professor of Diagnostic Imaging, Teaching Scholar Track Alpert Medical School, Brown University
2019-present	Professor of Diagnostic Imaging, Teaching Scholar Track Alpert Medical School, Brown University

HOSPITAL APPOINTMENTS AND POSITIONS

2001-2002	Practicing Radiologist Johns Hopkins Bayview Medical Center, Baltimore, MD
2001-2002	Practicing Radiologist American Radiology, Baltimore, MD
2002-Present	Attending Neuroradiologist Department of Diagnostic Imaging Rhode Island Hospital, Providence, RI
2002-Present	Attending Radiologist The Miriam Hospital, Providence, RI
2002-Present	Attending Radiologist Women & Infants Hospital, Providence, RI
2015-Present	Attending Radiologist Roger Williams Medical Center, Providence, RI
2015-Present	Attending Radiologist Saint Joseph's Health Services, North Providence, RI
2019-Present	Director of Neuroradiology Department of Diagnostic Imaging Rhode Island Hospital, Providence, RI
2021-Present	Attending Radiologist Kent Hospital, Warwick, RI

2021-Present	Attending Radiologist Newport Hospital, Newport, RI
2023-Present	Attending Radiologist South County Hospital, Wakefield, RI
2023-Present	Associate Medical Director of MRI Department of Diagnostic Imaging Rhode Island Hospital, Providence, RI

OTHER APPOINTMENTS AND POSITIONS

2004-2011	Co-Chair (Greg Sorensen, M.D.), American College of Radiology Imaging Network (ACRIN) Brain / Head and Neck Committee
2005-2007	Associate Residency Program Director, Department of Diagnostic Imaging, Rhode Island Hospital
2006-2016	Member, Medical Advisory Board, Imaging Biometrics, LLC, Milwaukee, WI
2011-Present	Vice-Chair for Brain (Chair: Dan Barboriak, M.D.), American College of Radiology Imaging Network (ACRIN) Head and Neck / Neuro Committee
2013-2016	Member, ECOG-ACRIN Scientific Advisory Committee
2014-Present	Member, Jumpstarting Brain Tumor Drug Development Coalition's Imaging Standardization Steering Committee; Co- chair of the Perfusion DSC-MRI Working Group
2014-Present	Member, Quantitative Imaging Biomarker Alliance (QIBA) DSC Perfusion Measure Workgroup
2015-2017	Member, GBM International Adaptive Trial Imaging Committee
2018-2020	Member, National Cancer Institute (NCI) Clinical Trials and Translational Research Advisory Committee (CTAC) <i>ad hoc</i> Working Group on Glioblastoma
2019-2021	Member, Imaging Core Workgroup for the National Brain Tumor Society's <i>Developing a New Brain Tumor Endpoint</i> Research Roundtable Consortium
2021-2022	Member, External Advisory Board UCLA SPORE in Brain Cancer
2022-Present	Member, ACR Brain Tumor RADS Committee

JOURNAL REVIEWER

1999-Present	Reviewer, Journal	l of Magnetic	Resonance	Imaging
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2001-Present	Reviewer, Magnetic Resonance in Medicine
2006-Present	Reviewer, American Journal of Neuroradiology
2007-Present	Reviewer, Radiology
	2011 Editor's Recognition Award, Reviewing with Distinction
2011-Present	Reviewer, Clinical Neurology and Neurosurgery
2015-Present	Reviewer, Neuro-Oncology
2021-2023	Co-Guest editor (with Kathleen Schmainda, Leland S Hu, Chad Quarles), <i>DSC-MRI Perfusion Imaging for High-Grade Glioma:</i> <i>Evidence for Routine Clinical Use</i> , a special journal edition to appear in Frontiers in Oncology - Neuro-Oncology and Neurosurgical Oncology

HOSPITAL COMMITTEES

2006-2009	Member, Stroke Center Executive Committee, Rhode Island Hospital
2014-2015	Member, search committee for neuro-oncologist, Department of Neurology, Rhode Island Hospital
2017-2018	Member, Education Committee, Department of Diagnostic Imaging, Rhode Island Hospital
	Primary responsibility: resident applicant interviews
2019-Present	Chair, Promotions Committee Department of Diagnostic Imaging, Rhode Island Hospital

UNIVERSITY COMMITTEES

2006-Present	Medical Director and Member of Scientific Advisory Committee, 3T MRI Research Facility, Institute for Brain Science, Brown University (Jerome Sanes, chair)
2012-Present	Co-chair for Neuroradiology, Radiology Committee of the Brown University Oncology Group (Howard Safran, chair)
2016-2017	Member , Brown Institute for Brain Science committee reviewing BIBS/NPNI New Frontiers Awards (John Davenport, chair)
2019-Present	Neuroradiology Program Leader, Scientific Review and Monitoring Committee of the Brown University Oncology Group (Howard Safran, chair)

MEMBERSHIP IN SOCIETIES

1992-Present	International Society, Magnetic Resonance in Medicine (ISMRM)
1997-Present	American Roentgen Ray Society (ARRS)
1997-Present	Radiological Society of North America (RSNA)
2000-Present	American College of Radiology (ACR)

2016	Awarded Fellow status
2001-Present	American Society of Neuroradiology (ASNR),
	Senior Member
2006-2008	Member, research committee
2016-Present	Grant reviewer, ASNR Foundation awards
2007-2019	Member, education committee
	Outstanding presentations subcommittee
2007-Present	Abstract reviewer for annual scientific meeting
2002-Present	Rhode Island Medical Society (RIMS)
2002-Present	Rhode Island Radiology Society (RIRS)
2008-2009	Secretary
2009-2010	Treasurer
2010-2011	Vice-President
2011-2012	President
2004-Present	New England Roentgen Ray Society (NERRS)
2005-2007	Association of Program Directors in Radiology (APDR)
2006-2007	Member, Annual Survey Committee
2006-2007	Member, Electronic Communication and
	Publications Committee
2005-Present	Association of University Radiologists (AUR)
2012-Present	American Society of Functional Neuroradiology (ASFNR)
2015-2017	Member, Clinical Practice Committee
2015-2017	Member, Research Committee
2019-Present	Co-chair, Diffusion and Perfusion Study Group
2023	Awarded Fellow status
2016-Present	Eastern Neuroradiological Society (ENRS)

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- 1. Weisskoff RM, Chesler D, **Boxerman JL**, Rosen BR. Pitfalls in MR measurement of tissue blood flow with intravascular tracers: Which mean transit time? Magn Reson Med 1993; 29(4):553-558. PMID: 8464373.
- 2. Weisskoff RM, Zuo CS, **Boxerman JL**, Rosen BR. Microscopic susceptibility variation and transverse relaxation: Theory and experiment. Magn Reson Med 1994; 31(6):601-610. PMID: 8057812.
- 3. **Boxerman JL**, Bandettini PA, Kwong KK, Baker JR, Davis TL, Rosen BR, Weisskoff RM. The intravascular contribution to fMRI signal change: Monte Carlo modeling and diffusion-weighted studies *in vivo*. Magn Reson Med 1995; 34(1):4-10. PMID: 7674897.
- 4. **Boxerman JL**, Hamberg LM, Rosen BR, Weisskoff RM. MR contrast due to intravascular magnetic susceptibility perturbations. Magn Reson Med 1995; 34(4): 555-566. PMID: 8524024.

- Sorensen AG, Wray SH, Weisskoff RM, Boxerman JL, Davis TL, Caramia F, Kwong KK, Stern CE, Baker JR, Breiter H, Gazit IE, Belliveau JW, Brady TJ, Rosen BR. Functional MR of brain activity and perfusion in patients with chronic cortical stroke. AJNR Am J Neuroradiol 1995; 16(9):1753-1762. PMID: 8693971.
- 6. Lev MH, Kulke SF, Sorensen AG, **Boxerman JL**, Brady TJ, Rosen BR, Buchbinder BR, Weisskoff RM. Contrast-to-noise ratio in functional MRI of relative cerebral blood volume with sprodiamide injection. J Magn Reson Imaging 1997; 7(3):523-527. PMID: 9170037.
- Boxerman JL, Rosen BR, Weisskoff RM. Signal-to-noise analysis of cerebral blood volume maps from dynamic NMR imaging studies. J Magn Reson Imaging 1997; 7(3):528-537. PMID: 9170038.
- 8. Bluemke DA, **Boxerman JL**, Atalar E, McVeigh ER. Segmented k-space cine breath-hold cardiovascular MR imaging: I. Principles and technique. AJR Am J Roentgenol 1997; 169(2):395-400. PMID: 9242742.
- 9. Bluemke DA, **Boxerman JL**, Mosher T, Lima JAC. Segmented k-space cine breathhold cardiovascular MR imaging: II. Evaluation of aortic vasculopathy. AJR Am J Roentgenol 1997; 169(2):401-407. PMID: 9242743.
- 10. **Boxerman JL**, Mosher TJ, McVeigh ER, Atalar E, Lima JAC, Bluemke DA. Advanced MR imaging techniques for evaluation of the heart and great vessels. Radiographics 1998; 18(3):543-564. PMID: 9599382.
- 11. Reeder SB, Faranesh AZ, **Boxerman JL**, McVeigh ER. In vivo measurement of T2* and field inhomogeneity maps in the human heart at 1.5 T. Magn Reson Med 1998; 39(6):988-998. PMID: 9621923.
- 12. Dennie J, Mandeville JB, **Boxerman JL**, Packard SD, Rosen BR, Weisskoff RM. NMR imaging of changes in vascular morphology due to tumor angiogenesis. Magn Reson Med 1998; 40(6):793-799. PMID: 9840821.
- 13. Kawamoto S, Shirai N, Strandberg JD, **Boxerman JL**, Bluemke DA. Nontraumatic osteonecrosis: MR perfusion imaging evaluation in an experimental model. Acad Radiol 2000; 7(2):83-93. PMID: 10730163.
- Beache GM, Herzka DA, Boxerman JL, Post WS, Gupta SN, Faranesh AZ, Solaiyappan M, Bottomley PA, Weiss JL, Shapiro EP, Hill MN. Attenuated myocardial vasodilator response in patients with hypertensive hypertrophy revealed by oxygenation-dependent magnetic resonance imaging. Circulation 2001; 104(11):214-1217. PMID: 11551869.

- 15. **Boxerman JL**, Schmainda KM, Weisskoff RM. Relative cerebral blood volume maps corrected for contrast agent extravasation significantly correlate with glioma tumor grade whereas uncorrected maps do not. AJNR Am J Neuroradiol 2006; 27(4):859-867. PMID: 16611779.
- Goldman M, Boxerman JL, Rogg JM, Noren G. The Utility of Apparent Diffusion Coefficient in Predicting the Outcome of Gamma Knife Treated Brain Metastases Prior to Changes in Tumor Volume: a Preliminary Study. J Neurosurg 2006 Dec; 105(Suppl):175-182. PMID: 18503353.
- 17. **Boxerman JL**, Hawash K, Bali B, Clarke T, Rogg J, Pal DK. Is Rolandic epilepsy associated with abnormal findings on cranial MRI? Epilepsy Research 2007; 75(2-3):180-185. PMID: 17624735.
- Boxerman JL, Rogg JM, Donahue JE, Machan JT, Goldman MA, and Doberstein CE. Pre-operative MR Evaluation of Pituitary Macroadenomas: Imaging Features that Predict Successful Transsphenoidal Surgery. AJR Am J Roentgenol. 2010 Sep;195(3):720-8. PMID: 20729452.
- 19. Koo EH, **Boxerman JL**, Murphy MA. Cortical Blindness Following a Near-Drowning Incident. J Neuroophthalmol 2011; 31(4):347-9. PMID: 21775894.
- 20. **Boxerman JL**, Prah DE, Paulson ES, Machan JT, Bedekar D, Schmainda KM. The Role of Preload and Leakage Correction in Gadolinium-Based Cerebral Blood Volume Estimation Determined by Comparison with MION as a Criterion Standard. AJNR Am J Neuroradiol 2012 33(6):1081-87. PMID: 22322605.
- Jayaraman MV, Boxerman JL, Davis LM, Haas RA, Rogg JM. Incidence of Extrinsic Compression of the Internal Jugular Vein in Unselected Patients Undergoing CT Angiography. AJNR Am J Neuroradiol 2012 33(7):1247-50. PMID: 22322614.
- 22. Raghavan D, **Boxerman JL**, Rogg JM, Cosgrove R. Glioblastoma Multiforme: Utilization of Advanced MRI Techniques for Preoperative Planning. Med Health RI 2012 Feb;95(2):42-3. PMID: 22474872.
- Boxerman JL, Jayaraman MV, Mehan WA, Rogg JM, Haas RA. Clinical Stroke Penumbra: Use of NIH Stroke Scale as a Surrogate for CT Perfusion in Patient Triage for Intra-arterial MCA Stroke Therapy. AJNR Am J Neuroradiol 2012 33(10):1893-900. (Selected for AJNR News Digest, March 2016) PMID: 22627795.
- 24. Raghavan D, **Boxerman JL**, Jeyapalan S, Rogg JM. Radiation Necrosis of a High-Grade Glioma. Med Health RI 2012 May;95(5):159-60. PMID: 22808637.

- 25. Jeyapalan S, Boxerman JL, Donahue J, Goldman M, Kinsella T, Dipetrillo T, Evans D, Elinzano H, Constantinou M, Stopa E, Puthawala Y, Cielo D, Santaniello A, Oyelese A, Mantripragada K, Rosati K, Isdale D, Safran H. Paclitaxel Poliglumex, Temozolomide and Radiation for Newly Diagnosed High-Grade Glioma: A Brown University Oncology Group Phase II Study. Am J Clin Oncol. 2014 Oct;37(5):444-9. PMID: 23388562.
- Boxerman JL, Paulson ES, Prah M, Schmainda KM. The Effect of Pulse Sequence Parameters and Contrast Agent Dose on Percent Signal Recovery in DSC-MRI: Implications for Clinical Applications. AJNR Am J Neuroradiol 2013 34(7):1364-9. PMID: 23413249.
- Spader HS, Ellermeier A, O'Muircheartaigh J, Dean III, DC, Dirks H, Boxerman JL, Cosgrove GR, Deoni SCL. Advances in Myelin Imaging with Potential Clinical Application to Pediatric Imaging. Neurosurg Focus 2013 34(4):E9. PMID: 23544415.
- Ratai EM, Zheng Z, Snyder B, Boxerman JL, Safriel Y, Gilbert M, Sorensen AG, Barboriak D. Magnetic Resonance Spectroscopy as an Early Indicator of Response to Anti-angiogenic Therapy in Patients with Recurrent Glioblastoma: ACRIN 6677 / RTOG 0625. Neuro Oncol. 2013 Jul;15(7):936-44. PMID: 23645534.
- 29. Swenson DW, Nickel BJ, **Boxerman JL**, Klinge PM, Rogg JM. Prenatal MRI Characterization of Brainstem Glioma. Pediatr Radiol. 2013 Oct;43(10):1404-7. PMID: 23677423.
- 30. Boxerman JL, Zheng Z, Safriel Y, Larvie M, Snyder BS, Jain R, Chi TL, Sorensen AG, Gilbert MR, Barboriak DP. Early Post-Bevacizumab Progression on Contrast-Enhanced MRI as a Prognostic Marker for Overall Survival in Recurrent Glioblastoma: Results from the ACRIN 6677 / RTOG 0625 Central Reader Study. Neuro Oncol. 2013 Jul;15(7):945-54. PMID: 23788270.
- Semmineh NB, Xu J, Boxerman JL, Delaney GW, Cleary PW, Gore JC, Quarles CC. An efficient computational approach to characterize DSC-MRI signals arising from three-dimensional heterogeneous tissue structures. PLoS One. 2014 Jan 8;9(1):e84764. PMID: 24416281.
- 32. Shiroishi MS, Castellazzi G, Boxerman JL (co-first author), Essig M, Nguyen TB, Provenzale JM, Enterline DS, Anzalone N, Dorfler A, Rovira A, D'Amore F, Wintermark M, Law M. Principles of T₂*-Weighted Dynamic Susceptibility Contrast MRI Technique in Brain Tumor Imaging. J Magn Reson Imaging. 2015 Feb;41(2):296-313. PMID: 24817252.
- 33. Chodakiewitz Y, Brown S, **Boxerman JL**, Brody J, Rogg JM. Ipilimumab Treatment Associated Pituitary Hypophysitis: Clinical Presentation and Imaging Diagnosis. Clin Neurol Neurosurg 2014 Oct;125:125-30. PMID: 25127260.

- 34. **Boxerman JL**, Ellingson BM, Jeyapalan S, Elinzano H, Harris RJ, Rogg JM, Pope WB, Safran H. Longitudinal DSC-MRI for Distinguishing Tumor Recurrence from Pseudoprogression in Patients with a High-Grade Glioma. Am J Clin Oncol, 2017 Jun;40(3):228-34 [Epub ahead of print in 2014]. PMID: 25436828.
- 35. Schmainda KM, Zhang Z, Prah M, Snyder BS, Gilbert MR, Sorensen AG, Barboriak DP, Boxerman JL. Dynamic Susceptibility Contrast MRI Measures of Relative Cerebral Blood Volume as a Prognostic Marker for Overall Survival in Recurrent Glioblastoma: Results from the ACRIN 6677/RTOG 0625 Multi-Center Trial. Neuro Oncol. 2015 Aug;17(8):1148-56. PMID: 25646027.
- 36. Ellingson BM, Kim E, Woodworth DC, Marques H, Boxerman JL, Safriel Y, McKinstry RC, Bokstein F, Jain R, Chi TL, Sorensen AG, Gilbert MR, Barboriak DP. Diffusion MRI Quality Control and Functional Diffusion Map (fDM) Results in ACRIN-6677/RTOG-0625: A Multicenter, Randomized, Phase II Trial of Bevacizumab and Chemotherapy in Recurrent Glioblastoma. Int J Oncol. 2015 May;46(5):1883-92. PMID: 25672376.
- 37. Welker K, Boxerman JL, Kalnin A, Kaufmann T, Shiroishi M, Wintermark M. MR Perfusion Standards and Practice Subcommittee of the ASFNR Clinical Practice Committee: Guidelines for Clinical Performance of MR Dynamic Susceptibility Contrast Perfusion Imaging of the Brain. AJNR Am J Neuroradiol. 2015 Jun;36(6):E41-51. PMID: 25907520.
- Boxerman JL, Ellingson BM. Response Assessment and MR Imaging Issues for Clinical Trials in High-Grade Gliomas. Top Magn Reson Imaging. 2015 Jun;24(3):127-36. PMID: 26049816.
- 39. Ellingson BM, Bendszus M, Boxerman JL, Barboriak DP, Erickson BJ, Smits M, Nelson SJ, Gerstner E, Alexander B, Goldmacher G, Wick W, Vogelbaum M, Weller M, Galanis E, Kalpathy-Cramer J, Shankar L, Pope WB, Knopp MV, Cha S, van den Bent MJ, Chang S, Al Yung WK, Cloughesy TF, Wen PY, Gilbert MR. Consensus Recommendations for a Standardized Brain Tumor Imaging Protocol (BTIP) in Clinical Trials. Neuro Oncol. 2015 Sep;17(9):1188-98. PMID: 26250565.
- 40. Goldmacher GV, Ellingson BM, **Boxerman JL**, Barboriak D, Pope WB, Gilbert M. Standardized Brain Tumor Imaging Protocol for Clinical Trials. AJNR Am J Neuroradiol. 2015 Oct;36(10):E65-6. PMID: 26359146.
- 41. Shiroishi MS, **Boxerman JL**, Pope WB. Physiologic MRI for Assessment of Response to Therapy and Prognosis in Glioblastoma. Neuro Oncol. 2016 Apr;18(4):467-78. PMID: 26364321.

- 42. Elinzano H, Glantz M, Mrugala M, Kesari S, Kim L, Jeyapalan S, Pan E, Yunus S, Coyle T, Kinsella T, Evans D, Mantripragada K, Boxerman JL, Dipetrillo T, Donahue J, Hebda N, Mitchell K, Rosati K, Safran H. PPX and Concurrent Radiation for Newly Diagnosed Glioblastoma Without MGMT Methylation A Randomized Phase II Study: BrUOG 244. Am J Clin Oncol. 2018 Feb;41(2):159-62 [Epub ahead of print in 2015]. PMID: 26658237.
- 43. Leu K, Boxerman JL, Lai A, Nghiemphu PL, Pope WB, Cloughesy TF, Ellingson BM. Bidirectional Contrast Agent Leakage Correction of DSC-MRI Improves Cerebral Blood Volume Estimation and Survival Prediction in Recurrent Glioblastoma Treated with Bevacizumab. J Magn Reson Imaging. 2016 Nov;44(5):1229-1237. PMID: 26971534.
- 44. Leu K, Boxerman JL, Cloughesy TF, Lai A, Nghiemphu PL, Pope WB, Ellingson BM. Improved Leakage Correction for Dynamic Susceptibility Contrast (DSC) Perfusion MRI Estimates of Relative Cerebral Blood Volume (rCBV) in Brain Tumors by Accounting for Interstitial Contrast Agent Washout Rate. AJNR Am J Neuroradiol. 2016 Aug;37(8):1440-6. PMID: 27079371.
- 45. Iyengar RJ, Klinge PM, Chen WS, **Boxerman JL**, Sullivan SR, Taylor HO. Management of Craniosynostosis at an Advanced Age: Controversies, Clinical Findings and Surgical Treatment. J Craniofac Surg. 2016 Jul;27(5):e435-41. PMID: 27380569.
- 46. **Boxerman JL**, Shiroishi MS, Ellingson BM, Pope WB. Dynamic Susceptibility Contrast MRI in Glioma: Review of Current Clinical Practice. Magn Reson Imaging Clin N Am. 2016 Nov;24(4):649-670. PMID: 27742108.
- 47. Dibble EH, **Boxerman JL**, Baird GL, Donahue J, Rogg JM. Toxoplasmosis versus Lymphoma: Cerebral Lesion Characterization Using DSC-MRI Revisited. Clin Neurol Neurosurg. 2017 Jan;152:84-89. PMID: 27940418.
- 48. Leu K, Boxerman JL, Ellingson BM. Effects of MRI Protocol Parameters, Preload Injection Dose, Fractionation Strategies, and Leakage Correction Algorithms on the Fidelity of Dynamic Susceptibility Contrast MRI Estimates of Relative Cerebral Blood Volume in Gliomas. AJNR Am J Neuroradiol. 2017 Mar;38(3):478-484. PMID: 28034995.
- Ellingson BM, Chung C, Pope WB, Boxerman JL, Kaufmann TJ. Pseudoprogression, radionecrosis, inflammation or true tumor progression? Challenges associated with glioblastoma response assessment in an evolving therapeutic landscape. J Neurooncol. 2017 Sep;134(3):495-504. PMID: 28382534.

- Semmineh NB, Stokes AM, Bell LC, Boxerman JL, Quarles CC. A Population-Based Digital Reference Object (DRO) for Optimizing Dynamic Susceptibility Contrast (DSC) MRI Methods for Clinical Trials. Tomography. 2017 Mar;3(1):41-49. PMID: 28584878.
- 51. **Boxerman JL**, Zhang Z, Safriel Y, Rogg JM, Wolf RL, Mohan S, Marques H, Sorensen AG, Gilbert MR, Barboriak DP. Prognostic Value of Contrast Enhancement and FLAIR for Survival in Newly Diagnosed Glioblastoma Treated With and Without Bevacizumab: Results from ACRIN 6686. Neuro Oncol. 2018 Sep;20(10):1400-10. PMID: 29590461.
- 52. Patel KM, Johnson J, Zacharioudakis IM, **Boxerman JL**, Flanigan TP, Reece RM. First Confirmed Case of Powassan Neuroinvasive Disease in Rhode Island. IDCases. 2018 Mar 23;12:84-87. PMID: 29942757.
- 53. Patel KM, Johnson J, **Boxerman JL**, Nau G. Two cases of group A streptococcus acute otitis media progressing to neuroinvasive disease in the elderly. IDCases. 2018 May 23;12:161-164. PMID: 29942780.
- 54. Adjepong K, **Boxerman JL**, Roth JL. Seeing Stars: Acute Repetitive Occipital Seizures in Hyperglycemia. Accepted to Neurographics, January 2018.
- 55. Semmineh NB, Bell LC, Stokes AM, Hu L, **Boxerman JL**, Quarles CC. Optimization of Acquisition and Analysis Methods for Clinical Dynamic Susceptibility Contrast (DSC) MRI Using a Population-based Digital Reference Object. AJNR Am J Neuroradiol. 2018 Nov;39(11):1981-1988. PMID: 30309842.
- 56. Barboriak DP, Zhang Z, Desai P, Snyder BS, Safriel Y, McKinstry RC, Bokstein F, Sorensen AG, Gilbert MR, Boxerman JL. Inter-reader Variability in Dynamic Contrast-Enhanced Imaging of Patients with Recurrent Glioblastoma Multiforme: Results from the Multi-Center ACRIN 6677 / RTOG 0625 Study. Radiology. 2019 Feb;290(2):467-476. PMID: 30480488.
- 57. Moldovan K, **Boxerman JL**, O'Muircheartaigh J, Dean D, Eyerly-Webb S, Cosgrove GR, Pucci F, Deoni S, Spader H. Myelin Water Fraction Changes in Febrile Seizures. Clin Neurol Neurosurg. 2018 Dec;175:61-67. PMID: 30384118.
- 58. Bell LC, Semmineh N, An H, Eldeniz C, Wahl R, Schmainda KM, Prah MA, Erickson BJ, Korfiatis P, Sorace AG, Yankeelov TE, Rutledge N, Chenevert TL, Malyarenko D, Liu Y, Brenner A, Huang S, Hu LS, Zhou Y, Boxerman JL, Yen YF, Kalpathy-Cramer J, Beers AL, Muzi M, Madhuranthakam AJ, Pinho M, Johnson B, Quarles CC. Evaluating Multi-Site CBV Consistency from DSC-MRI Protocols and Post-Processing Software Across the NCI Quantitative Imaging Network Sites Using a Digital Reference Object (DRO). Tomography. 2019 Mar;5(1):110-117. PMID: 30854448.

- 59. Schmainda KM, Prah MA, Hu L, Quarles CC, Semmineh N, Rand SD, Connelly JM, Anderies B, Zhou Y, Liu Y, Logan B, Stokes A, Baird G, Boxerman JL. Moving Towards a Consensus DSC-MRI Protocol: A Low Flip Angle, Single-Dose Methodology as a Reference Standard for Brain Tumors. AJNR Am J Neuroradiol. 2019 Apr;40(4):626-633. PMID: 30923088.
- 60. Schmainda KM, Prah MA, Zhang Z, Snyder BS, Bedekar D, Rand S, Barboriak DP, Boxerman JL. Quantitative Delta T1 (dT1) as a Replacement for Adjudicated Central Reader Analysis of Contrast-Enhancing Tumor Burden: A Subanalysis of the American College of Radiology Imaging Network 6677/Radiation Therapy Oncology Group 0625 Multicenter Brain Tumor Trial. AJNR Am J Neuroradiol. AJNR Am J Neuroradiol. 2019 Jul;40(7):1132-1139. PMID: 31248863.
- 61. Chang K, Beers AL, Bai HX, Brown J, Ly KI, Li X, Senders JT, Kavouridis VK, Boaro A, Su C, Bi WL, Rapalino O, Liao W, Shen Q, Zhou H, Xiao B, Wang Y, Zhang PJ, Pinho MC, Wen PY, Batchelor TT, **Boxerman JL**, Arnaout O, Rosen BR, Gerstner ER, Yang L, Huang RY, Kalpathy-Cramer J. Automatic Assessment of Glioma Burden: A Deep Learning Algorithm for Fully Automated Volumetric and Bi-dimensional Measurement. Neuro Oncol. 2019 Nov 4;21(11):1412-1422. PMID: 31190077.
- 62. Lee M, Baird G, Bell L, Quarles CC, **Boxerman JL**. Utility of Percent Signal Recovery and Average Baseline Signal in DSC-MRI Optimized for rCBV Measurement for Differentiation of GBM, Metastasis, Lymphoma and Meningioma. AJNR Am J Neuroradiol. 2019 Sep;40(9):1445-1450. PMID: 31371360.
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- 1. **Boxerman JL**, Schmainda KM, Zhang Z, Barboriak DP. Dynamic susceptibility contrast MRI measures of relative cerebral blood volume continue to show promise as an early response marker in the setting of bevacizumab treatment. Neuro Oncol. 2015 Nov;17(11):1538-9. PMID: 26361983.
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NON-PEER REVIEWED PUBLICATIONS

GRADUATE THESES

1. Boxerman JL. Variable Block-Sized Vector Quantization of Grayscale Images with Unconstrained Tiling. S. M. Dissertation. Massachusetts Institute of Technology, June 1989. Advisor: Bruce Musicus, Ph.D.

Describes the design and performance evaluation of an image compression scheme using unconstrained image segmentation into multi-sized, non-overlapping rectangular regions, each of which is vector quantized. This scheme performs better in a rate-distortion sense than traditional variable block-sized vector quantizers for certain applications, including efficient compression in single-encode, multipledecode applications such as medical image databases and servers.

 Boxerman JL. Non-Invasive Measurement of Physiology Using Dynamic Susceptibility Contrast NMR Imaging. Ph.D. Dissertation, Massachusetts Institute of Technology, February 1995. Advisor: Robert Weisskoff, Ph.D. Committee Chair: David Cory, Ph.D. Readers: Bruce Rosen, M.D., Ph.D.; Deborah Burstein, Ph.D.; Alan Grodzinsky, Ph.D.

Quantifies contrast due to magnetic susceptibility in functional magnetic resonance imaging. Computer models are applied to dynamic functional MRI studies aimed at quantifying cerebral blood volume and the hemodynamic changes associated with cortical neuronal activation using exogenous and endogenous contrast agents, respectively. This thesis provides both an improved understanding of the fundamental principles of susceptibility contrast, and a better ability to interpret physiologic images in this new generation of susceptibility-based functional MRI.

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- 5. **Boxerman JL**, van Osch MJP, Schmainda KM. Susceptibility Contrast in Tissues: Gradient-Echoes vs. Spin-Echoes. Invited chapter in: Bammer R, ed. MR & CT Perfusion Imaging: Clinical Applications and Theoretical Principles. Philadelphia, PA: Lippincott Williams & Wilkins, 2016; Chapter 11.
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CORPORATE AUTHORSHIP OR MULTICENTER TRIALS

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- 1. Riccardello G, Hagan MJ, Donahue JE, **Boxerman JL**, Rogg J. Chronic lymphocytic inflammation with pontine perivascular enhancement responsive to steroids (CLIPPERS) with elevated relative cerebral blood volume. Submitted to Rhode Island Medical Journal, March 2024.
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- 1. Rex NB, Chuck CC, Dandapani H, Zhou HG, Yi TY, Collins SA, Bai HX, Eloyan A, Jones RN, **Boxerman JL**, Girard T, Boukrina O, Reznik ME. Neuroimaging Markers of Brain Reserve and Associations with Delirium in Patients with Intracerebral Hemorrhage.
- 2. Semmineh NB, Guha I, Healey D, Chandrasekharan A, **Boxerman JL**, Quarles CC. A Deep Learning Model for Estimating Vessel Size Distribution from MR Gradient Echo Sampling of the Free Induction Decay and Spin Echo Sequence Data.

MEETING PRESENTATIONS AND PUBLISHED ABSTRACTS

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- 16. Bluemke DA, **Boxerman JL**, Kawamoto S. Dynamic contrast-enhanced MR with fat suppression: effect of tissue composition on perfusion parameters. 5th Annual Meeting of the Society of Magnetic Resonance. Vancouver, BC, 1997; 1615.
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- Bluemke DA, Boxerman JL, Intravenous vascular access planning: Evaluation of the entire body using MR venography. 6th Annual Meeting of the Society of Magnetic Resonance. Sydney, Australia, 1998; 843.
- Herzka DA, Boxerman JL, Post WS, Reeder SB, Faranesh AZ, Chin BB, Hill MN, Shapiro EP, Weiss JL, McVeigh ER, Beache GM. Heterogeneity of BOLD-indexed myocardial perfusion reserve. 7th Annual Meeting of the Society of Magnetic Resonance. Philadelphia, PA, 1999; 1277.
- 20. **Boxerman JL**, Rand SD, Krouwer HGJ, Schmainda KM. Relative cerebral blood volume maps corrected for contrast agent extravasation significantly correlate with glioma tumor grade whereas uncorrected maps do not. **Platform presentation** at American Society of Neuroradiology 42nd Annual Meeting. Seattle, WA, 2004.

- 21. Goldman M, **Boxerman JL**, Rogg J, Noren G. The utility of apparent diffusion coefficient for predicting response of non-small cell lung cancer brain metastases to stereotactic radiosurgery. American Society of Neuroradiology 44th Annual Meeting. San Diego, CA, 2006.
- 22. **Boxerman JL**, Rogg J, Donahue JE, Goldman M, Duncan J. Evaluation of MRI criteria for predicting surgical success of transsphenoidal pituitary macroadenoma resection: tumor ADC relates significantly with inadequate resection. **Platform presentation** at American Society of Neuroradiology 44th Annual Meeting, San Diego, CA, 2006.
- 23. **Boxerman JL**, Hawash K, Bali B, Clarke T, Rogg J, and Pal DK. No Excess of neuroimaging abnormalities associated with rolandic epilepsy. 10th International Child Neurology Congress, Montreal, 2006.
- 24. Goldman M, **Boxerman JL**, Rogg J, Park M, and Noren G. The utility of apparent diffusion coefficient for predicting response of brain metastases to gamma knife radiosurgery. 13th International Meeting of the Leksell Gamma Knife Society, Seoul, Korea, May 21-25, 2006.
- 25. Goldman M, **Boxerman JL**, Rogg J, Park M, and Noren G. Initial tumor volume decrease is not predictive of therapeutic response to gamma knife radiosurgery for intracranial breast and non-small cell lung metastases 13th International Meeting of the Leksell Gamma Knife Society, Seoul, Korea, May 21-25, 2006.
- 26. **Boxerman JL**, Prah DE, Paulson ES, and Schmainda KM. The Role of Pre-dose and Leakage Correction in Gd-based Cerebral Blood Volume Estimation Determined by Comparison to MION as a Gold Standard. **Platform presentation** at American Society of Neuroradiology 45th Annual Meeting, Chicago, IL, 2007.
- Walsh EG, Boxerman JL, Xie J, Nu C, Kohler N, Sun S. MRI Observations of Static Dephasing with Cellular Uptake of PEG-Coated Iron Oxide Nanoparticles. Joint Molecular Imaging 2007 Conference, Providence, RI, September 2007, Program Number 345.
- 28. **Boxerman JL**, Rogg JM, Donahue JE, Machan JT, Goldman MA, and Doberstein CE. Pre-operative MR Evaluation of Pituitary Macroadenomas: Imaging Features that Predict Successful Transsphenoidal Surgery. **Platform presentation** at American Roentgen Ray Society 110th Annual Meeting, San Diego, CA, 2010, Presentation 204.
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- Sorensen AG, Zhang Z, Boxerman JL, Safriel Y, Gimpel J, Snyder B, Girardi V, Larvie M, Gilbert M. Increased Progression with T2-based Imaging during Anti-VEGF Therapy in Glioblastoma: ACRIN 6677 / RTOG 0625. RSNA 96th Scientific Assembly, 2010, Presentation SSA15-07.
- 32. Mehan W, **Boxerman JL**, Rogg J, Haas R, Jayaraman M. What Is the Added Value of CTP above CTA in Decision Making for Intra-Arterial Stroke Therapy? RSNA 96th Scientific Assembly, 2010, Presentation SSC12-05.
- 33. Blitstein MK, Boxerman JL, Rogg J, Elinzano H, Jeyapalan S, Goldman M, Dargush M, Santaniello A, Dipetrillo T, Safran H. The Role of Longitudinal Perfusion-Weighted MRI Measures in Distinguishing Tumor Recurrence from Pseudoprogression in a Cohort of Patients with High-Grade Gliomas Receiving Radiation Therapy (IMRT), Temozolomide (TMZ) and Paclitaxel Poliglumex (PPX). American Society of Neuroradiology 49th Annual Meeting, Seattle, June 2011, Presentation 539.
- Blitstein MK, Rogg JM, Boxerman JL, Klinge P, Sampath P Mandelbaum D. Clinical correlation and significance of MRI findings in Chiari I malformation. American Society of Neuroradiology 49th Annual Meeting, Seattle, June 2011, Presentation 485.
- 35. Jeyapalan S, Goldman M, Boxerman JL, Donahue J, Elinzano H, Evans D, ‡O'Connor B, Puthawala MY, Oyelese A, Cielo D, Blitstein M, Dargush M, Santaniello A, Constantinou M, Dipetrillo T, and Safran H. A phase II study of paclitaxel poliglumex (PPX), temozolamide (TMZ), and radiation (RT) for newly diagnosed high-grade gliomas. American Society of Clinical Oncology 2011 Annual Meeting, Chicago, June 2011, presentation 2036 (poster discussion session).
- 36. Donahue J, Jeyapalan S, Goldman M, Elinzano H, Boxerman JL, Dipetrillo T, Safran H. Pathology of 'Pseudoprogression' in a Phase II Study of PPX, TMZ, and RT for Newly Diagnosed High-Grade Gliomas. American Association of Neuropathologists 87th Annual Meeting, Seattle, June 2011, presentation 52.

- 37. Ellingson BM, Boxerman JL, Jeyapalan S, Elinzano HD, Goldman M, Dipetrillo T, Safran H, Pope WB. Functional perfusion maps (fPMs) derived from serial DSC-MRI estimates of rCBV can differentiate pseudoprogression & quiescent tumor from progressive disease in malignant glioma patients treated with paclitaxel poliglumex (PPX). American Society of Neuroradiology 50th Annual Meeting, New York, April 2012, electronic poster 82.
- 38. Ellingson BM, Boxerman JL, Jeyapalan S, Elinzano HD, Goldman M, Dipetrillo T, Safran H, Pope WB. Time-dependent cell invasion, motility, and proliferation level estimate (CIMPLE map) characteristics of malignant gliomas treated with paclitaxel poliglumex (PPX). American Society of Neuroradiology 50th Annual Meeting, New York, April 2012, electronic poster 75.
- Jayaraman MV, Boxerman JL, Rogg JM, Silver B. Can patient selection for IA stroke therapy be optimized without "Advanced Imaging"? American Society of Neuroradiology 50th Annual Meeting, New York, April 2012, electronic poster 158.
- 40. Ratai EM, Zheng Z, Snyder B, Yeh M, Gilbert M, L'Heureux DZ, Boxerman JL, Sorensen AG, Barboriak D. MR spectroscopy as an early indicator of response to anti-angiogenic therapy in patients with recurrent glioblastoma: ACRIN 6677 / RTOG 0625. International Society of Magnetic Resonance in Medicine 20th Annual Meeting, Melbourne, Australia, May 2012, electronic poster.
- Semmineh NB, Boxerman JL, Xu J, Quarles CC. Cell Density and Spacing Influence DSC-MRI Data Acquired in Brain Tumors. International Society of Magnetic Resonance in Medicine 20th Annual Meeting, Melbourne, Australia, May 2012, electronic poster (#4248).
- 42. Semmineh NB, **Boxerman JL**, Xu J, Delaney GW, Gore JC, Quarles CC. Cell Geometry, Density and Spatial Distribution Influence DSC-MRI Data Acquired in Brain Tumors. International Society of Magnetic Resonance in Medicine Workshop on Perfusion MRI, Amsterdam, Netherlands, October 2012, poster presentation (poster #9).
- 43. Boxerman JL, Zheng Z, Safriel Y, Larvie M, Gimpel J, Snyder B, Yeh M, Sorensen AG, Barboriak D, Gilbert M. Early Post-Bevacizumab Progression Status by MRI Predicts Overall Survival in Recurrent Glioblastoma: Results from the ACRIN 6677/RTOG 0625 Central Reader Study. Platform presentation at RSNA 98th Scientific Assembly, 2012, Presentation VSNR21-05.
- 44. Spader HS, Deoni SC, Dean D, Muircheartaigh J, Boxerman JL, Cosgrove GR. Using a Novel Myelin Imaging Technique to Identify Previously Occult Seizure Foci. American Association of Neurological Surgeons 81st Annual Scientific Meeting, New Orleans, April 2013, Presentation 640.

- 45. Farnam J, Boxerman JL, Jeyapalan S, Elinzano H, Goldman M, Safran H. Extreme Pseudoprogression on MRI of High-grade Gliomas Treated with Paclitaxel Poliglumex: Comparison with Conventional Pseudoprogression and True Tumor Progression. American Society of Neuroradiology 51st Annual Meeting, San Diego, May 2013, presentation as an education exhibit (EdE-16).
- 46. Semmineh NB, Xu J, Boxerman JL, Delaney GW, Quarles CC. DSC-MRI Derived T2* Leakage Effect Depends on Structural Features of Extravascular Space. International Society of Magnetic Resonance in Medicine 21st Annual Meeting, Salt Lake City, May 2013, accepted as a poster presentation (poster #4809).
- 47. Elinzano H, Kadivar F, Yadav PO, Breese VL, Jackson CL, Donahue JE, Boxerman JL. Analysis of Perfusion and Volumetric MRI in Progressive Glioblastoma Patients Treated with Continuous Dose Intense Temozolomide. Society for Neuro-oncology 18th Annual Meeting, San Francisco, November 2013, accepted as a poster presentation.
- 48. Schmainda KM, Zhang Z, Boxerman JL, Prah M, Snyder B, Bedekar D, Sorensen AG, Gilbert MR, Barboriak DP. DSC-MRI Measures of Relative Cerebral Blood Volume (rCBV) as a Prognostic Marker for Progression-Free and Overall Survival in Recurrent Glioblastoma: Results from the ACRIN 6677/RTOG 0625 Multi-Center Trial. International Society of Magnetic Resonance in Medicine 22nd Annual Meeting, Milan, Italy, May 2014, oral platform presentation (#0280).
- Iyengar RJ, Klinge PM, Boxerman JL, Sullivan SR, Taylor HO. Management of Craniosynostosis at An Advanced Age: Clinical Findings, Surgical Treatment, and Controversies. New England Society of Plastic and Reconstructive Surgeons 55th Annual Meeting, Sebasco Harbor, ME, June 2014, oral platform presentation.
- 50. Barboriak DP, Zhang Z, Snyder B, Safriel Y, McKinstry RC, Bokstein F, Sorensen AG, Gilbert MR, Boxerman JL. Inter-reader variability in dynamic contrast-enhanced MR imaging (DCE-MRI) of patients with recurrent glioblastoma multiforme: results from the multi-center ACRIN 6677 / RTOG 0625 study. RSNA 100th Scientific Assembly, Chicago, 2014, Poster presentation NRS455.
- 51. Boxerman JL, Zhang Z, Schmainda KM, Snyder BS, Prah M, Safriel Y, Sorensen AG, Gilbert MR, Barboriak DP. Early Post-Bevacizumab Change in rCBV from DSC-MRI Predicts Overall Survival in Recurrent Glioblastoma Whereas 2D-T1 Response Status Does Not: Results from the ACRIN 6677/RTOG 0625 Multi-Center Study. Platform presentation at RSNA 100th Scientific Assembly, Chicago, 2014, presentation VSNR51-10.
- 52. Iyengar RJ, Klinge PM, **Boxerman JL**, Sullivan SR, Taylor HO. Management of craniosynostosis at an advanced age. Presented by Iyengar RJ. Rhode Island Hospital Research Day, Providence, Rhode Island, October 2, 2014.
- 53. Klinge PM, Taylor HO, **Boxerman JL**, Sullivan SR. Multidisciplinary management of craniosynostosis in school kids and adolescents. Congress of Neurological Surgeons 2014

Annual Meeting, Boston, October 18-22, 2014, Poster presentation.

- 54. Iyengar RJ, Klinge PM, Boxerman JL, Sullivan SR, Taylor HO. Management of craniosynostosis at an advanced age: Clinical findings, surgical treatment, and controversies. Poster presentation at 72nd Annual Meeting of the American Cleft Palate-Craniofacial Association, Palm Springs, CA, April 20-25, 2015.
- 55. Dibble EH, Rogg JM, Donahue J, Boxerman JL. Toxoplasmosis versus Lymphoma: Cerebral Lesion Characterization Using Dynamic Susceptibility Contrast MRI and Relative Cerebral Blood Volume Estimates. American Society of Neuroradiology 53rd Annual Meeting, Chicago, April 2015, oral presentation O-173.
- 56. Ellingson BM, Kim E, Woodworth DC, Marques H, Boxerman JL, Safriel Y, McKinstry RC, Bokstein F, Jain R, Chi TL, Sorensen AG, Gilbert MR, Barboriak DP. Diffusion MRI Quality Control and Functional Diffusion Map (fDM) Results in ACRIN 6677/RTOG 0625: A multicenter, Randomized, Phase II Trial of Bevacizumab and Chemotherapy in Recurrent Glioblastoma. American Society of Neuroradiology 53rd Annual Meeting, Chicago, April 2015, oral presentation O-70.
- 57. Klinge PM, Iyengar R, Sullivan SR, Chen W, **Boxerman JL**, Taylor HO. Controversies in the Management of Craniosynostosis at an Advanced Age. 7th Annual Meeting of the International Society of Hydrocephalus and CSF disorders, Banff, September 2015, oral presentation.
- 58. Dibble EH, Swenson DW, Cobb C, Boxerman JL, Movson JH. The RADCAT 3 System for Closing the Loop on Important Non-Urgent Radiology Findings: A User-Friendly Multidisciplinary System-Wide Approach. Accepted for presentation at the American Society for Emergency Radiology's 2015 Annual Scientific Meeting and Postgraduate Course Conference, Key Biscayne, FL, September 2015, oral presentation.
- 59. Leu K, Boxerman JL, Cloughesy TF, Lai A, Nghiemphu PL, Liau L, Pope WB, Ellingson BM. Improved Leakage Correction for Dynamic Susceptibility Contrast (DSC) Perfusion MRI Estimates of Relative Cerebral Blood Volume (rCBV) in High-Grade Gliomas by Accounting for Bidirectional Contrast Agent Exchange. 20th Annual Meeting of the Society for Neuro-Oncology, San Antonio, November 2015, oral presentation.
- 60. Punsoni M, Julian J, Jolly G, **Boxerman JL**, Choi DB, Chopra P, Donahue JE, Moldovan K, Stopa EG, Klinge PM. Filum Pathology of Occult Tethered Cord Syndrome in Ehlers Danlos Patients. 2016 Annual Meeting of the United States and Canadian Academy of Pathology, Seattle, WA, March 2016, poster presentation.
- Semmineh NB, Gardner K, Boxerman JL, Quarles CC. The Influence of Pre-load Contrast Agent Dosing Schemes on DSC-MRI Data. 24th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Singapore, May 2016, poster presentation (6171).
- 62. Boxerman JL, Zhang Z, Safriel Y, Rogg JM, Wolf RL, Marques H, Gimpel J, Sorensen

AG, Gilbert MR, Barboriak DP. Assessment of the Prognostic Value of Contrast Enhancement and FLAIR for Overall Survival in Newly Diagnosed Glioblastoma Treated With and Without Bevacizumab: Results from the ACRIN 6686/RTOG 0825 Central Reader Study. **Platform presentation** at RSNA 102nd Scientific Assembly, Chicago, 2016, presentation RC305-08.

- Leu K, Boxerman JL, Ellingson BM. Optimized Image Acquisition and Leakage Correction Post-Processing of Dynamic Susceptibility Contrast (DSC) MRI for Highest Accuracy of Relative Cerebral Blood Volume (rCBV) Quantification in Human Brain Tumors. Platform presentation at RSNA 102nd Scientific Assembly, Chicago, 2016, presentation SST08-05.
- 64. Dibble EH, Furman MS, Lourenco AP, Swenson DW, **Boxerman JL**, Cassese JA. What can go wrong: Pediatric neuroaxis abnormalities from fetal life to neonatal life. Accepted for presentation at the American Roentgen Ray Society 2017 Annual Scientific Meeting, New Orleans, LA, April 30-May 5, 2017, electronic exhibit.
- 65. Semmineh NB, Stokes AM, Bell LC, Boxerman JL, Quarles CC. Optimization of Acquisition and Analysis Methods for Clinical Dynamic Susceptibility Contrast (DSC) MRI Using a Validated Digital Reference Object. Accepted for presentation at the 25th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, HI, April 2017, oral presentation.
- 66. Semmineh NB, Stokes AM, Bell LC, Boxerman JL, Quarles CC. A Population-Based Digital Reference Object (DRO) for Optimizing Dynamic Susceptibility Contrast (DSC) MRI Methods for Clinical Trials. Accepted for presentation at the 25th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, HI, April 2017, poster presentation.
- 67. Boxerman JL, Quarles CC, Prah M, Schmainda KM. A Comparison of Low Flip-Angle, No- Preload DSC-MRI to Intermediate Flip- Angle, Preload-Based DSC-MRI as a Reference Standard. Platform presentation at ASNR American Society of Neuroradiology 56th Annual Meeting, Vancouver, BC, June 4, 2018, presentation O-33.
- 68. Lee M, Baird G, Bell L, Quarles CC, Boxerman JL. Utility of Percent Signal Recovery and Average Baseline Signal in DSC-MRI Optimized for rCBV Measurement for Differentiation of GBM, Metastasis, Lymphoma and Meningioma. Platform presentation at ASNR American Society of Neuroradiology 56th Annual Meeting, Vancouver, BC, June 4, 2018, presentation O-35.
- 69. Baker A, **Boxerman JL**, Klinge P, Baird G, Rogg JM. Radiographically Occult Tethered Cord in Pediatric and Adult Patients. Platform presentation at ASNR American Society of Neuroradiology 56th Annual Meeting, Vancouver, BC, June 5, 2018, presentation O-208.
- 70. Kim YR, Boxerman JL. Evaluation of Transvascular Water Exchange Index (WEI) in Post-thrombectomy Patients. Multimedia Electronic Poster presentation at 26th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Paris, France,

June 2018.

- 71. Stib MT, Dong MP, Kim YH, Subzwari SS, Triedman HJ, Wang A, Yao AD, Zhu LL, Boxerman JL, Baird G, Cetintemel U, Eickhoff C, McTaggart RA. Deep Learning in Emergent Large Vessel Occlusion Detection using Maximum Intensity Projections via CT Angiography. Poster presentation at SIIM Machine Learning Conference, San Francisco, September 2018.
- 72. Lotter B, Boxerman JL, Sorensen AG. Improved Performance of Machine Learning-Based Analysis of Mammography by Using Digital Breast Tomosynthesis Versus 2D Mammography. Scientific presentation at RSNA 104th Scientific Assembly, Chicago, November 2018.
- 73. Yao AD, Stib MT, Dong MP, Kim YH, Subzwari SS, Triedman HJ, Wang A, Zhu LL, Boxerman JL, Baird G, Cetintemel U, Eickhoff C, McTaggart RA. Utilization of Deep Learning on CT Angiogram to Aid in the Diagnosis of Emergent Large Vessel Occlusion (ELVO). Poster presentation at RSNA 104th Scientific Assembly, Chicago, November 2018.
- 74. Dong MP, Kim YH, Subzwari SS, Triedman HJ, Wang A, Zhu LL, Yao AD, Baird G, Cetintemel U, Eickhoff C, Stib MT, **Boxerman JL**, McTaggart RA. Machine Learning for ELVO Detection. Technical abstract presentation, MIT Undergraduate Machine Intelligence Conference, Cambridge, MA, November 2018.
- 75. Hays S, DiBiasio E, Caine A, Baird G, Cutting S, Yaghi S, **Boxerman JL**, Jindal G, Burton T, Saad A, Mac Grory B, Furie K, McTaggart R, Jayaraman M. CT and Multiphase CTA alone can identify thrombectomy candidates beyond 6 hours. Poster presentation at International Stroke Conference 2019, Honolulu, HI.
- 76. Stib MT, Dong MP, Kim YH, Subzwari SS, Triedman HJ, Wang A, Yao AD, Zhu LL, Boxerman JL, Baird G, Cetintemel U, Eickhoff C, McTaggart RA. Localizing Large Vessel Occlusions on CT Angiography Using a 3-D Deep Learning Model. Poster presentation at International Stroke Conference 2019, Honolulu, HI.
- 77. Prah MA, Hu L, Boxerman JL, Quarles CC, Connelly JM, Schmainda KM. Evaluation of Fractional Tumor Burden (FTB) fidelity using a no-preload, low-flip angle dynamic susceptibility contrast MRI acquisition scheme. Oral presentation at the 27th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Quebec, May 2019.
- 78. Semmineh NB, Bell LC, Stokes AM, Mathew E, Lee MD, Boxerman JL, Quarles CC. Investigating the Influence of DSC-MRI Acquisition Methods on the Clinical Application of Percentage Signal Recovery in Brain Tumors. Oral presentation at the 27th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Quebec, May 2019.
- 79. Bell LC, Semmineh N, An H, Eldeniz C, Wahl R, Schmainda KM, Prah MA, Erickson BJ,

Korfiatis P, Wu C, Sorace AG, Rutledge N, Yankeelov TE, Chenevert TL, Malyarenko D, Liu Y, Brenner A, Hu LS, Zhou Y, **Boxerman JL**, Yen YF, Kalpathy-Cramer J, Beers AL, Muzi M, Madhuranthakam AJ, Pinho M, Johnson B, Quarles CC. Evaluating multi-site rCBV consistency from DSC-MRI imaging protocols and post- processing software across the NCI Quantitative Imaging Network sites using a Digital Reference Object. Oral presentation at the 27th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Quebec, May 2019.

- 80. Schmainda KM, Prah MA, Zhang Z, Snyder BS, Rand S, Jensen T, Barboriak DP, Boxerman JL. Quantitative deltaT1 (qDT1) as a Replacement for Adjudicated Central ReaderAnalysis: A Sub-Analysis of the RTOG 0625/ACRIN 6677 Multi-Center Brain Tumor Trial. Oral presentation at the 27th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Quebec, May 2019.
- 81. Kaufmann TJ, Chung C, Smits M, Huang R, Barboriak DP, Gerstner E, Boxerman JL, Shankar L, Weller M, van den Bent MJ, Brown PD, Burns TC, Parney IF, Tsien C, Dunn G, Galanis E, Brastianos PK, Wen PY, Ellingson BM. Consensus Recommendations for a Standardized Brain Tumor Imaging Protocol for Clinical Trials in Brain Metastases (BTIP-BM). Oral presentation at the 24th Annual Meeting of the Society for NeuroOncology, Phoenix, Arizona, November 2019.
- 82. Wang R, Chang K, Zhou H, Jing W, Cohan G, Huang RY, Boxerman JL, Yang L, Hui F, Woo JH, Bai HX. Identification of Irreversibly Damaged Brain Tissue on CT Perfusion Using Convolutional Neural Network to Assist Selection for Mechanical Thrombectomy in Ischemic Stroke Patients. Accepted to the 45th Annual Meeting of the Society for Interventional Radiology, Seattle, Washington, March 2020.
- 83. Semmineh N, Bhalla U, Bell LC, Stokes AM, Lee MD, Hu LS, Boxerman JL, Quarles CC. Analysis of Accuracy and Precision of Recommended Protocols for Dynamic Susceptibility Contrast MRI for Brain Metastases. Digital poster presentation at the 28th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia, April 2020.
- 84. Bell LC, Hu LS, Zhou Y, Schmainda KM, Boxerman JL, Quarles CC. Pixel-wise and Regional Comparison of a Low Flip Angle, Single-dose versus Moderate Flip Angle, Double-dose DSC-MRI Protocol. Digital poster presentation at the 28th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia, April 2020.
- 85. Bell LC, Semmineh N, Hu LS, Zhou Y, Prah M, Schmainda KM, Boxerman JL, An H, Eldeniz C, Wahl R, Erickson BJ, Korfiatis P, Wu C, Yankeelov TE, Sorace AG, Rutledge N, Chenevert TL, Malyarenko D, Liu Y, Brenner A, Yen YF, Kalpathy-Cramer J, Beers AL, Muzi M, Madhuranthakam AJ, Pinho M, Johnson B, Quarles CC. Evaluating the Use of rCBV as a Tumor Grade Classifier Across NCI Quantitative Imaging Network Sites: Part II of the DSC-MRI DRO Challenge. Oral presentation at the 28th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Sydney, Australia, April 2020.

- 86. Bell LC, Hu LS, Zhou Y, Schmainda KM, **Boxerman JL**, Quarles CC. Pixel-wise comparison of the newly recommended low flip angle, single-dose versus moderate flip angle, double-dose DSC-MRI protocol. Oral presentation at the 58th Annual Meeting of the American Society of Neuroradiology in Las Vegas, Nevada, May 2020 (virtual meeting).
- 87. Daiello LA, Wang DJ, Jones RN, Boxerman JL, Tremont G, O'Bryant S, Kendall M, Cioffi WG, De Oliveira GS, Ott BR, Inouye SK. Blood-brain Barrier Dysfunction and Perioperative Neurocognitive Disorders: Cognitive Recovery After Elective Surgery (CREATES) Study Design and Methods. Accepted for poster presentation at the Alzheimer's Association International Conference 2020 in Amsterdam, Netherlands, July 2020.
- 88. Rex NB, Dandapani H, Zhou H, Yi T, Collins SA, Bai HX, Eloyan A, Daiello LA, Furie KL, Jones RN, Boxerman JL, Deoni SC, Reznik ME. Neuroimaging Correlates of Brain Reserve and Associations with Delirium in Patients with Intracerebral Hemorrhage. Accepted for poster presentation (virtual) at the American Academy of Neurology Annual Meeting, April 17-22, 2021.
- Kim YR, Boxerman JL. Mapping of Relative Water Exchange Index (rWEI) in Post Thrombectomy Patients. Accepted for digital poster presentation at the 29th Annual Meeting of the International Society for Magnetic Resonance in Medicine (virtual), May 2021.
- 90. Kim DD, Peng J, Patel JB, Chang K, Xun XP, Zhang C, Sollee J, Wu J, Dalal DJ, Boxerman JL, Poussaint TY, States LJ, Cramer JK, Huang RY, Bai HX. Addressing Intraand Inter-rater Variability Within Response Assessment of Pediatric Medulloblastomas and Leptomeningeal Seeding Tumors Using a Deep Learning Based Automatic Tumor Segmentation and Response Assessment Model. Oral presentation at RSNA 107th Scientific Assembly, Chicago, November 2021.
- 91. Ghosh S, Kalmes A, Baird G, Sutherland J, Mock J, Smith WJ, Cook DJ, Boxerman JL, Jindal G, Jayaraman M, Madsen T, Furie K, Moldovan K, Torabi R, McTaggart R. RESCUE: A Randomized, Blinded, Placebo-controlled, Parallel Group Design to Determine the Safety of RNS60 in Large Vessel Occlusion Stroke Patients Undergoing Endovascular Thrombectomy. Accepted for poster presentation at International Stroke Conference 2022, New Orleans, February 2022.
- 92. Shao X, Wang DJJ, Boxerman JL, Schlett WJ, Cosgriff MP, Daiello LA. Reliability of BBB Water Exchange Rate Assessed by Diffusion-Prepared Pseudo-Continuous ASL (DPpCASL): Preliminary Results from the Cognitive Recovery After Elective Surgery (CREATES) Study. Accepted for poster presentation at Alzheimer's Association International Conference, San Diego, CA, August 2022.
- 93. Leary OP, Jiao Z, Zhong Z, Bi L, Sayied S, Riccardello G, Bai H, Klinge PM, Boxerman JL. MRI-Based Prediction of Clinical Improvement Following Ventricular Shunting for Normal Pressure Hydrocephalus (NPH) Using Artificial Intelligence: Assessment of Model Performance in 241 patients. Accepted for electronic poster presentation at the American

Society of Neuroradiology 2023 Annual Meeting, Chicago, IL / Virtual.

- 94. Anil A, Stokes AM, Alhilali L, Karis JP, Bell LC, Hu LS, Boxerman JL, Schmainda KM, Quarles CC. Identification of a Single-dose, Low-flip Angle Based CBV Threshold for Fractional Tumor Burden (FTB) Mapping in Recurrent Glioblastoma. Accepted for poster presentation at the International Society of Magnetic Resonance in Medicine (ISMRM) 2023 Annual Meeting, Toronto, Canada, June 2023.
- 95. Flick M, Caruso FP, Weiskittel T, Ensign SPF, Wang H, Malik D, Anil A, LaFond G, Stevens V, Semmineh N, Boxerman JL, Schmainda KM, Baxter LC, Li J, Zhou Y, Iavarone A, Quarles CC, Tran NL, Ceccarelli M, Hu LS. Consensus DSC-MRI Identifies Therapeutically Distinct Invasive Subtypes of High-grade Glioma (HGG) through Transcriptomic Pathway Enrichment Analysis. Accepted for poster presentation at the American Society of Functional Neuroradiology (ASFNR) 2023 Annual Meeting, Boston, MA, October 2023.
- 96. Karimi H, Leary OP, Sastry R, Klinge PM, **Boxerman JL**. Assessment of MRI Vulnerability of the Magnetically Programmable Shunt Valve. Accepted for electronic poster presentation at the RSNA 109th Scientific Assembly, Chicago, November 2023.
- 97. Imami MR, Thomasian N, Xun X, Deng Y, Swenson DW, Atalay MK, Cetintemel U, Zhang PJ, Boxerman JL, Bai HX, Jiao J. Utilizing Large Language Models for Neuro-Oncologic Prediction: A Multi-Center Study on Magnetic Resonance Imaging Reports. Accepted for oral presentation (cutting edge section) at the RSNA 109th Scientific Assembly, Chicago, November 2023.
- 98. Pillai SS, Boxerman JL, Groblewski JC, Denardo BD, Faizan MK, Topor LS, Robilliard R, Serrano-Gonzalez M. An Adolescent Girl with Syndrome of Inappropriate Antidiuretic Hormone Secretion Preceding the Diagnosis of Esthesioneuroblastoma. Accepted for poster presentation at the Pediatric Endocrine Society (PES) 2024 Annual Meeting, Chicago, May 2024.
- 99. Semmineh NB, Guha I, **Boxerman JL**, Quarles CC. Deep Learning-based Voxel-wise Estimation of Vessel Size Distribution from MR Gradient Echo Sampling of the Free Induction Decay and Spin Echo Sequence Data. Accepted for poster presentation at the International Society of Magnetic Resonance in Medicine (ISMRM) 2024 Annual Meeting, Singapore, May 2024.
- 100. Ellingson BM, Villanueva-Meyer JE, Huang R, Sanvito F, Cloughesy TF, Barboriak D, Shankar LK, Smits M, Kaufmann T, Boxerman JL, Weller M, Galanis E, deGroot J, Gilbert MR, Lassman AB, Mehta M, Stupp R, Wick W, Reardon D, Vogelbaum M, van den Bent M, Chang S, Wen PY. Updates to the Response Assessment in Neuro-Oncology Criteria (RANO 2.0). Accepted for oral presentation at the American Society of Neuroradiology (ASNR) 2024 Annual Meeting, Las Vegas, NV, May 2024.
- 101. Sanvito F, Yao J, Cho N, Raymond C, Telesca D, Pope W, Everson R, Salamon N, **Boxerman JL**, Cloughesy TF, Ellingson BM. "Synthetic" perfusion MRI with adjustable

acquisition parameters in brain tumors using dynamic spin-and-gradient-echo echoplanar imaging. Accepted for poster presentation at the European Society of Neuroradiology (ESNR) 2024 Annual Meeting, Paris, France, September 2024.

- 102. Sanvito F, Yao J, Cho N, Raymond C, Telesca D, Pope W, Everson R, Salamon N, Boxerman JL, Cloughesy TF, Ellingson BM. "Synthetic" perfusion MRI with adjustable acquisition parameters in brain tumors using dynamic spin-and-gradient-echo echoplanar imaging. Accepted for poster presentation at the Society of Neuro-oncology (SNO) 2024 Annual Meeting, Houston, TX, November 2024.
- 103. Ma Z, Bi L, Zhong Z, Lu S, Baird G, Tapinos N, Cetintemel U, Bai H, Boxerman JL, Jiao Z. Leveraging Transfer Learning with Large Language Models for Integration of Multimodal Reports in Brain Tumor Diagnosis. Accepted for presentation at the IEEE International Symposium on Biomedical Imaging (ISBI) 2025 Annual Meeting, Houston, TX, April 2025.
- 104. Bi L, Ma Z, Collins P, Baird G, Lu S, Leary OP, Tapinos N, Boxerman JL, Jiao Z. Transfer Learning in Large Language Models for Integration of Pathology-Radiology Reports in Brain Tumor Diagnosis. Accepted for presentation at the American Society of Neuroradiology (ASNR) 2025 Annual Meeting, Philadelphia, PA, May 2025.

INVITED PRESENTATIONS

REGIONAL

- 1. Overview of Cerebral CT Perfusion Imaging. Invited presentation, Imaging Conference for Department of Diagnostic Imaging, Rhode Island Hospital, November 26, 2003.
- 2. Overview of Cerebral MR Perfusion Imaging. Invited presentation, Imaging Conference for Department of Diagnostic Imaging, Rhode Island Hospital, October 20, 2004.
- 3. Cerebral MR Perfusion Imaging with Brain Tumor Applications. Invited presentation, Neurosurgery Grand Rounds, Rhode Island Hospital, February 14, 2005.
- 4. *Overview of CT Perfusion Imaging of Acute Stroke*. **Invited presentation**, New England Roentgen Ray Society, Cambridge, MA, September 23, 2005.
- 5. Overview of Radiology Case Conference Presentation. Invited presentation, Imaging Conference for Department of Diagnostic Imaging, Rhode Island Hospital, December 14, 2005.
- 6. Overview of Cerebral MR Perfusion Imaging with an Emphasis on Brain Tumor Applications. Invited presentation, In-Service Training for MRI Technologists, Rhode Island Hospital, March 26, 2007.

- 7. *CT Perfusion Imaging of Acute Stroke at Rhode Island Hospital: a Primer*. **Invited presentation**, Imaging Conference for Department of Diagnostic Imaging, Rhode Island Hospital, December 4, 2007.
- 8. *fMRI and Pre-operative Planning for Brain Tumors at RIH: An Update.* **Invited presentation**, Imaging Conference for Department of Diagnostic Imaging, Rhode Island Hospital, March 21, 2011.
- 9. *Panel of Unknown Cases, Neuroradiology*. **Invited faculty**, New England Roentgen Ray Society, Boston, MA, April 8, 2011.
- 10. Some Practical Technical and Clinical Considerations about Quantitative DSC-MRI of Brain Tumors. Invited presentation to the MGH Quantitative Tumor Imaging Group meeting, Massachusetts General Hospital, Charlestown, MA, July 12, 2013.
- 11. Review of Imaging Results for ACRIN 6677 / RTOG 0625: Treatment of Recurrent GBM with Bevacizumabplus Irinotecan or Temozolomide. Invited presentation to the Dana Farber/Brigham and Women's Hospital Neuro-Oncology Multidisciplinary Conference, Brigham and Women's Hospital, Boston, MA, March 6, 2015.
- 12. Update on DSC Perfusion MRI in the Brain: Neuro-oncology Applications at Rhode Island Hospital. Invited presentation, Imaging Conference for Department of Diagnostic Imaging, Rhode Island Hospital, October 7, 2015.
- 13. Update on Research within the Neuroradiology Section at Rhode Island Hospital. Invited presentation, Department of Diagnostic Imaging Research Group Meeting, Rhode Island Hospital, December 12, 2019.
- 14. *DSC Perfusion MRI Applied to Neuro-Oncology*. **Invited presentation**, Combined Neurology/Neurosurgery Grand Rounds, Rhode Island Hospital, July 22, 2020.
- 15. *Neuroradiology QA Conference*. **Invited presentation**, Department of Diagnostic Imaging QA Series, Rhode Island Hospital, March 28, 2022.
- 16. *DSC Perfusion MRI: Principles and Applications to Neuro-oncology*. **Invited presentation**, Neurology Grand Rounds, Rhode Island Hospital, June 22, 2022.
- 17. *Neuroradiology QA Conference*. **Invited presentation**, Department of Diagnostic Imaging QA Series, Rhode Island Hospital, March 30, 2023.
- 18. DSC Perfusion MRI: Principles and Applications to Neuro-oncology. Invited speaker, presented at Neuroradiology Fellow Advanced Imaging Conference, Massachusetts General Hospital, April 5, 2024 (virtual presentation).
- 19. *DDI Promotions*. **Invited presentation**, Department of Diagnostic Imaging Faculty Development Series, Rhode Island Hospital, January 21, 2025.

NATIONAL

- 1. *Mechanisms of signal change in functional magnetic resonance imaging.* **Invited presentation**, Annual Scientific Meeting of the Biomedical Engineering Society, Tempe, AZ, September 1994.
- 2. *Brain Tumor Imaging: T2 MRI Perfusion*. Invited faculty, ACRIN 2004 Fall meeting, Arlington, VA, October 8, 2004.
- 3. *Trial Update on ACRIN 6677 / RTOG 0625*. Committee member and **Trial PI**, ACRIN 2011 Fall meeting, Arlington, VA, September 23, 2011.
- 4. *Trial Update on ACRIN 6686 / RTOG 0825*. Committee member and **Trial PI**, ACRIN 2011 Fall meeting, Arlington, VA, September 23, 2011.
- 5. An Update on Pseudoprogression Found in Patients with High-grade Gliomas Treated with PPX plus Temozolomide in BrUOG 223. Invited presentation to BrUOG 244 investigators at Society of Neurooncology Annual Meeting, Washington, DC, November 16, 2012.
- 6. DSC Perfusion Physics: Practical Technical and Clinical Considerations for Concentration Measurements in Tissues. Invited faculty, ASFNR American Society of Functional Neuroradiology 7th Annual Meeting, Charleston, SC, March 11, 2013.
- 7. Recent Advances in DSC-MRI: Leakage Correction and Percent Signal Recovery Methods. Invited faculty, ASFNR American Society of Functional Neuroradiology 7th Annual Meeting, Charleston, SC, March 11, 2013.
- Quantitative DSC-MRI of Brain Tumors: Practical Technical and Clinical Considerations (Radiology Grand Rounds lecture) and Neuroradiology Case Review (Presentation of teaching cases to Radiology residents). Visiting Professor, Department of Radiology, Dartmouth-Hitchcock Medical Center, Lebanon, NH, August 20, 2013.
- 9. *Trial Update on ECOG-ACRIN E3613*. Committee member and **Trial PI** (Imaging), ECOG-ACRIN 2013 Fall meeting, Hollywood, FL, November 15, 2013.
- 10. *Trial Update on ACRIN 6677 / RTOG 0625*. Committee member and **Trial PI**, ECOG-ACRIN 2013 Fall meeting, Hollywood, FL, November 16, 2013.
- 11. *Trial Update on ACRIN 6686 / RTOG 0825*. Committee member and **Trial PI**, ECOG-ACRIN 2013 Fall meeting, Hollywood, FL, November 16, 2013.

- Quantitative DSC-MRI of Brain Tumors: Practical Technical and Clinical Considerations (Radiology Grand Rounds lecture); Susceptibility Contrast and Diffusion-Weighted MRI Techniques: Applications to Neuroimaging (Resident Noon Conference lecture) and Neuroradiology Case Review (Presentation of teaching cases to Radiology residents). Visiting Professor, Department of Radiology and Imaging Sciences, Emory University School of Medicine, Atlanta, GA, January 14-15, 2014.
- 13. DSC Perfusion Physics: Practical Technical and Clinical Considerations for Concentration Measurements in Tissues. Invited faculty, ASFNR American Society of Functional Neuroradiology 8th Annual Meeting, Miami, FL, February 17, 2014.
- Pitfalls in DSC-MRI: Leakage Correction or Not? Invited faculty, ASFNR American Society of Functional Neuroradiology 8th Annual Meeting, Miami, FL, February 17, 2014.
- MR Perfusion Clinical Practice Standards: DSC-MRI Acquisition and Post-Processing. Invited faculty, ASFNR American Society of Functional Neuroradiology 8th Annual Meeting, Miami, FL, February 17, 2014.
- 16. Does T2/FLAIR Improve on the Assessment of Response to Therapy? Results from ACRIN 6677/RTOG 0625. Invited presentation, Meeting of the RANO study group at ASCO 2014, Chicago, IL, May 30, 2014.
- 17. *Trial Update on ACRIN 6677 / RTOG 0625*. Committee member and **Trial PI**, ECOG-ACRIN 2014 Fall meeting, Orlando, FL, November 15, 2014.
- 18. *Trial Update on ACRIN 6686 / RTOG 0825*. Committee member and **Trial PI**, ECOG-ACRIN 2014 Fall meeting, Orlando, FL, November 15, 2014.
- DSC Perfusion Physics and Leakage Correction: Practical Technical and Clinical Considerations for Concentration Measurements in Tissues. Invited faculty, ASFNR American Society of Functional Neuroradiology 9th Annual Meeting, Tucson, AZ, March 18, 2015.
- 20. DSC-MRI and the Identification of Tumor Recurrence in the Setting of Pseudoprogression and Pseudoresponse. Invited faculty, ASFNR American Society of Functional Neuroradiology 9th Annual Meeting, Tucson, AZ, March 18, 2015.
- Assessing Treatment Response of Gliomas with DSC-MRI and the Need for Standardization in Clinical Trials. Invited faculty, SNO Society of Neuro-Oncology 20th Annual Meeting, San Antonio, TX, November 22, 2015.
- DSC Perfusion Physics and Leakage Correction: Practical Technical and Clinical Considerations. Invited faculty, ASFNR American Society of Functional Neuroradiology 10th Annual Meeting, Austin, TX, February 29, 2016.

- Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Concept EAF151. Presented to the ECOG-ACRIN (Legacy ACRIN) Head/Neck/Neuro Committee (Committee member and Trial PI), ECOG-ACRIN 2016 Spring meeting, Boston, MA, May 13, 2016.
- 24. *Trial Update on Concept EAF151*. **Invited presentation** to the Brain Tumor Working Group, ECOG-ACRIN 2016 Spring meeting, Boston, MA, May 13, 2016.
- 25. Assessing Treatment Response of Gliomas with DSC-MRI and the Need for Standardization in Clinical Trials. **Invited presentation (SAM session)**, ASNR American Society of Neuroradiology 54th Annual Meeting, Washington, DC, May 24, 2016.
- 26. Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Concept EAF151. Presented to the ECOG-ACRIN (Legacy ACRIN) Head/Neck/Neuro Committee (Committee member and Trial PI), ECOG-ACRIN 2016 Fall meeting, Orlando, FL, November 11, 2016.
- 27. *Trial Update on Concept EAF151*. **Invited presentation** to the Brain Tumor Working Group, ECOG-ACRIN 2016 Fall meeting, Orlando, FL, November 12, 2016.
- Evidence-Based Best Practices for Clinical DSC-MRI. Invited presentation, ASNR American Society of Neuroradiology 55th Annual Meeting, Long Beach, CA, April 25, 2017.
- 29. *Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Trial EAF151*. Presented to the ECOG-ACRIN (Legacy ACRIN) Head/Neck/Neuro Committee (Committee member and **Trial PI**), ECOG-ACRIN 2017 Spring meeting, Washington, DC, May 5, 2017.
- 30. *Trial Update on Concept EAF151*. **Invited presentation** to the Brain Tumor Working Group, ECOG-ACRIN 2017 Spring meeting, Washington, DC, May 5, 2017.
- 31. Streamlining Clinical Trials to Accelerate Brain Tumor Drug Development. Invited participant in a roundtable research discussion sponsored by the National Brain Tumor Society, Washington, DC, June 28, 2017.
- DSC Perfusion Physics and Leakage Correction: Practical Technical and Clinical Considerations. Invited faculty, ASFNR American Society of Functional Neuroradiology 11th Annual Meeting, Portland, OR, October 9, 2017.
- 33. Assessing Treatment Response of Gliomas with DSC-MRI. Invited faculty, ASFNR American Society of Functional Neuroradiology 11th Annual Meeting, Portland, OR, October 9, 2017.

- 34. *Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Trial EAF151*. Presented to the ECOG-ACRIN (Legacy ACRIN) Head/Neck/Neuro Committee (Committee member and **Trial PI**), ECOG-ACRIN 2017 Fall meeting, Orlando, FL, October 27, 2017.
- 35. *Trial Update on Concept EAF151*. **Invited presentation** to the Brain Tumor Working Group, ECOG-ACRIN 2017 Fall meeting, Orlando, FL, October 27, 2017.
- 36. DSC-MRI: Efforts Towards Standardization and Use Cases for CBV and Other Markers in Neuro-oncology Clinical Trials. **Invited presentation** to the National Cancer Institute Clinical Imaging Steering Committee, Improving Brain Tumor Characterization with Advanced Neuroimaging Methods Workshop, Shady Grove (Rockville), MD, April 18-19, 2018.
- Overview of EAF151: Change in Relative Cerebral Blood Volume as a Biomarker for Early Response to Bevacizumab in Patients with Recurrent Glioblastoma. Invited presentation at the RA Education Symposium, ECOG-ACRIN 2018 Spring meeting, Chicago, IL, May 4, 2018.
- Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Trial EAF151. Presented to the ECOG-ACRIN (Legacy ACRIN) Brain/Neuro Committee (Committee member and Trial PI), ECOG-ACRIN 2018 Spring meeting, Chicago, IL, May 5, 2018.
- 39. *Trial Update on Concept EAF151*. **Invited presentation** to the Brain Tumor Working Group, ECOG-ACRIN 2018 Spring meeting, Chicago, IL, May 5, 2018.
- 40. DSC-MRI: Application to Clinical Trials and the Need for Standardization. Invited faculty, presented at ASFNR American Society of Functional Neuroradiology 12th Annual Meeting, San Diego, CA, October 15, 2018.
- Overview of EAF151: Change in Relative Cerebral Blood Volume as a Biomarker for Early Response to Bevacizumab in Patients with Recurrent Glioblastoma. Invited presentation at the Clinical Research Associate Symposium, ECOG-ACRIN 2019 Fall meeting, Ft. Lauderdale, FL, October 26, 2018.
- Overview of EAF151: Change in Relative Cerebral Blood Volume as a Biomarker for Early Response to Bevacizumab in Patients with Recurrent Glioblastoma. Invited presentation at the Oncology Nursing Committee Symposium, ECOG-ACRIN 2019 Fall meeting, Ft. Lauderdale, FL, October 26, 2018.
- 43. *Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Trial EAF151*. Presented to the ECOG-ACRIN (Legacy ACRIN) Brain/Neuro Committee (Committee member and **Trial PI**), ECOG-ACRIN 2018 Fall meeting, Ft. Lauderdale, FL, October 26, 2018.

- 44. Clinical Trials and Translational Research Advisory Committee Ad hoc Working Group on Glioblastoma. Invited participant in a subgroup exploring GBM Clinical Trials Driven by Molecular Pharmacodynamics and Imaging, sponsored by the NCI, Washington, DC, January 14, 2019. The Committee's final report was presented to NCI Clinical Trials and Translational Research Advisory Committee (CTAC) on July 17, 2019.
- 45. *Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Trial EAF151*. Presented to the ECOG-ACRIN (Legacy ACRIN) Brain/Neuro Committee (Committee member and **Trial PI**), ECOG-ACRIN 2019 Spring meeting, Boston, MA, May 3, 2019.
- 46. An Update on Standardization of DSC-MRI Methodology for Use in Multi-center Clinical Trials. Invited presentation, Meeting of the RANO study group at ASCO 2019, Chicago, IL, May 31, 2019.
- 45. *Trial Update on ACRIN 6677 / RTOG 0625, ACRIN 6686 / RTOG 0825, and Trial EAF151*. Presented to the ECOG-ACRIN (Legacy ACRIN) Brain/Neuro Committee (Committee member and **Trial PI**), ECOG-ACRIN 2019 Fall meeting, Ft. Lauderdale, FL, October 25, 2019.
- 46. An Update on Standardization of DSC-MRI Methodology for Neuro-oncology. Invited faculty, presented at ASFNR American Society of Functional Neuroradiology 13th Annual Meeting to the Diffusion/Perfusion Study Group, San Francisco, CA, November 4, 2019.
- 47. Evidence-Based Best Acquisition Protocols for DSC-MRI in Brain Tumors. Invited faculty, presented in the educational session Innovations in MR and CT Perfusion at RSNA 105th Scientific Assembly and Annual Meeting, Chicago, IL, December 5, 2019.
- 48. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Summer Virtual Group Meeting, August 7, 2020.
- 49. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Neuro Imaging Committee (Committee **Co-Chairman**), Fall Virtual Meeting, September 24, 2020.
- 50. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Fall Virtual Group Meeting, October 21, 2020.
- 51. Evidence-Based Best Acquisition Protocols for DSC-MRI in Brain Tumors. Invited faculty, presented as PowerPoint content in the virtual educational session Innovations in MR and CT Perfusion at RSNA 106th Scientific Assembly and Annual Meeting, December 2020.

- 52. Invited panelist, *Perfusion Imaging in Brain Tumors*, ASFNR Presents: Perfusion Imaging Webinar, December 9, 2020.
- 53. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Spring Virtual Group Meeting, April 28, 2021.
- 54. Evidence-Based Best Acquisition Protocols for DSC-MRI with Application to Treatment Response in High-Grade Gliomas. Invited faculty, presented as a prerecorded talk in the Adult Brain I: Neoplasm (SA-CME) session at Eastern Neuroradiological Society 33rd Annual Meeting, August 19, 2021 (virtual meeting).
- 55. Evidence-Based Best Acquisition Protocols for DSC-MRI with Application to Treatment Response in High-Grade Gliomas. Invited faculty, presented at ASFNR American Society of Functional Neuroradiology 14th Annual Meeting, Santa Fe, NM, September 21, 2021.
- 56. **Invited panelist**, *Neuroimaging Session*, SNO/ASCO First Annual Conference on CNS Clinical Trials, October 2, 2021.
- 57. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Fall Virtual Group Meeting, October 22, 2021.
- 58. Evidence-Based Best Acquisition Protocols for DSC-MRI with Application to Treatment Response in High-Grade Gliomas. Invited faculty, presented as PowerPoint content in the virtual educational session Innovations in MR and CT Perfusion at RSNA 107th Scientific Assembly and Annual Meeting, December 2021.
- 59. DSC Perfusion MRI: Principles and Applications to Neuro-oncology. Invited speaker, presented at Department of Radiology Neuroradiology Grand Rounds, Sidney Kimmel Medical College of Thomas Jefferson University, February 16, 2022 (virtual presentation).
- 60. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Spring Group Meeting (virtual presentation), May 4, 2022.
- 61. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Fall Group Meeting, Washington, DC, October 28, 2022.
- 62. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Spring Group Meeting, Chicago, IL, May 5, 2023 (virtual presentation).

- 63. *Perfusion Imaging for Brain Tumors: DSC-MRI.* Invited faculty, presented at ASFNR American Society of Functional Neuroradiology 16th Annual Meeting, Boston, MA, October 7, 2023.
- 64. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Fall Group Meeting, Washington, DC, October 27, 2023.
- 65. *The Clinical Benefits of Perfusion MRI for Glioblastomas*. **Invited presenter and panelist**, AppliedRadiology Expert Forums webinar, June 13, 2024 (virtual presentation).
- 66. *EAF151 Trial Update*. Presented to the ECOG-ACRIN Brain Tumor Working Group (Committee member and **Trial PI**), Fall Group Meeting, Ft. Lauderdale, FL, November 8, 2024.

INTERNATIONAL

- 1. DSC Concentration Measurements in Tissues with Practical Technical and Clinical Considerations. Invited faculty, ISMRM Scientific Workshop on Perfusion MRI, Amsterdam, The Netherlands, October 12, 2012.
- DSC-MRI and Its Role in Distinguishing Tumor Recurrences from Pseudoprogression and Pseudoresponse. Invited presentation, ASNR American Society of Neuroradiology 52nd Annual Meeting, Montreal, Quebec, Canada, May 20, 2014.
- 3. DSC-MRI Fundamentals and Applications to Brain Tumors Including Assessment of Treatment Response and the Need for Standardization in Clinical Trials. Invited presentation (SAM session), ENRS Eastern Neuroradiological Society 28th Annual Meeting, Quebec City, Quebec, Canada, August 11, 2016.
- 4. Evidence-Based Best Acquisition Protocols for Clinical DSC-MRI with an Emphasis on Neuro-oncology Trials. Invited presentation in the educational course Basic Perfusion, ISMRM International Society of Magnetic Resonance in Medicine 27th Annual Meeting, Montreal, Quebec, Canada, May 12, 2019. This presentation was selected to be included in the interactive ISMRM Online Education Program for SA-CME credit.

SESSION SUPERVISION AT NATIONAL CONFERENCES

 Adult Brain: Cerebrovascular Occlusive Disease I (Scientific Papers), Comoderator. ASNR American Society of Neuroradiology 45th Annual Meeting, Chicago, IL, June 13, 2007.

- Interventional: Thrombolysis/Stroke (Scientific Papers), Co-moderator. ASNR American Society of Neuroradiology 49th Annual Meeting, Seattle, WA, June 7, 2011.
- 3. *Physics Basic I (Invited Presentations)*, **Moderator.** ASFNR American Society of Functional Neuroradiology 8th Annual Meeting, Miami, FL, February 17, 2014.
- 4. *Adult Brain*, **Co-chair**, **Program Committee**. ENRS Eastern Neuroradiological Society 29th Annual Meeting, Toronto, Ontario, Canada, August 24, 2017.
- ASFNR Programming: Perfusion Imaging for the Clinician (Invited Presentations), Co-moderator. ASNR American Society of Neuroradiology 57th Annual Meeting, Boston, MA, May 20, 2019.
- 6. *Perfusion Imaging*, **Moderator.** ASFNR American Society of Functional Neuroradiology 13th Annual Meeting, San Francisco, CA, November 4, 2019.
- 7. ASFNR Programming: Perfusion Imaging: Let's Make It An Essential Part of Your Practice (SAM), Moderator. AFNR American Society of Neuroradiology 59th Annual Meeting (virtual), May 26, 2021.

GRANTS

- MRI Contrast Agent Methods to Assess Tumor Angiogenesis (RO1 CA082500) NIH / National Cancer Institute Principal Investigator: Kathleen Schmainda, Ph.D. Consultant 2003 –2007
- Diffusion-tensor and perfusion-weighted MRI for improved detection of early cerebrovascular white matter injury in patients with hypertension Department of Diagnostic Imaging (RIH) Seed Grant (\$15,000)
 Principal Investigator 2005
- Utilization of MR Perfusion Imaging as a Screening Tool to Assess the Risk of Stroke in Asymptomatic Patients with Sickle Cell Disease: A Feasibility Study Department of Diagnostic Imaging (RIH) Seed Grant (\$15,000) Co-Principal Investigator 2006
- Quantification of Blood-Brain Barrier Permeability to Water with MRI: Validation of Intravascular Contrast Agent Tecnique in Transgenic Mouse Models of Altered Blood-Brain Barrier Permeability and Application to Human Neurodegenerative Disease Department of Diagnostic Imaging (RIH) Seed Grant (\$15,000) Principal Investigator 2009

- Magnetic nanoparticle hyperthermia of glioblastoma with real-time MRI monitoring Department of Diagnostic Imaging (RIH) Seed Grant (\$15,000) Co-Principal Investigator 2010
- Toward Multi-Center MR Brain Perfusion (RO1 NS060918) NIH / National Institute of Neurological Disorders and Stroke Principal Investigator: Steven Stufflebeam, M.D., Ph.D. Consultant 2012-2015
- Multi-omics post-treatment response assessment in glioma with unbiased artificial intelligence
 Advance RI-CTR 2023 Mentored Research Awards (\$200,000)
 Principal Investigator: Zhicheng Jiao, Ph.D.
 Mentor
 2024-2026

PARTICIPATION IN NIH/NCI-FUNDED TRIALS

1.	2011-Present	ACRIN Principal Investigator , ACRIN 6677/RTOG 0625: <i>A</i> <i>Randomized Phase II Trial of Bevacizumab with Irinotecan or</i> <i>Bevacizumab with Temozolomide in Recurrent Glioblastoma</i> . Funded by NCI U01-CA080098 and U01-CA079778 (no current funding)
2.	2011-Present	ACRIN Principal Investigator , ACRIN 6686/RTOG 0825: <i>Phase</i> <i>III Double Blind Placebo-Controlled trial of conventional</i> <i>concurrent chemoradiation and Adjuvant Temozolomide plus</i> <i>Bevacizumab Versus Conventional Concurrent Chemoradiation</i> <i>and Adjuvant Temozolomide in Patients with Newly Diagnosed</i> <i>Glioblastoma.</i> Funded by NCI U01-CA080098 and Biomarker, Imaging and Quality of Life Studies Funding Program (BIQSFP) (no current funding)
3.	2017-Present	Principal Investigator, ECOG-ACRIN EAF151: Change in Relative Cerebral Blood Volume as a Predictive Biomarker for Response to Bevacizumab in Patients with Recurrent Glioblastoma. Funded by NCI U01-CA180820 (no current funding after 3/1/2019)
4.	2017-2022	Co-Principal Investigator (with Schmainda KM [MCW], Hu L [Mayo Scottsdale], Quarles CC [Barrow Neurological Institute]): <i>Multi-site Validation and Application of a Consensus DSC-MRI</i> <i>Protocol.</i> Funded by NCI R01-CA221938-01, 9% effort (7/2019–11/2019),

		5% effort (12/2019–1/2020), 4% effort (2/2020–7/2020), 16% effort (8/2020–1/2021), 6% effort (3/2021–2/2022)
5.	2019-Present	Co-Investigator (Kathleen Schmainda, PI), <i>Quantitative</i> (<i>Perfusion and Diffusion</i>) <i>MRI Biomarkers to Measure Glioma</i> <i>Response</i> . Funded by NIH U01-CA176110, 7.4% effort (3/2020–8/2020), 3.47% effort (9/2020–12/2020), 5.2% effort (1/2021–8/2021), 3.7% effort (9/2021–5/2022), 3.5% effort (6/2022-8/2024)
6.	2019-Present	Co-investigator (Lori Daiello, PI), <i>Blood-brain Barrier</i> <i>Disruption as a Biomarker for Perioperative Neurocognitive</i> <i>Disorders: Cognitive Recovery After Elective Surgery (CREATES)</i> <i>study.</i> Funded by NIH R01-AG058648, 10% effort (5/2019-2/2022), 5% effort (3/2022-5/2022), 10% effort (6/2022-2/2024)
7.	2022-Present	Co-Principal Investigator (with Schmainda KM [MCW], Hu L [Mayo Scottsdale], Quarles CC [Barrow Neurological Institute]): <i>Establishing the clinical utility of a consensus DSC-MRI Protocol</i> . Funded by NCI R01-CA264992-01, 8% effort (3/2022–2/2026)
8.	2023-Present	Co-Chair (with Barboriak D [Chair], Steingrimsson J, Schmainda KM, McConathy J, Kleinberg L, Schiff D [Co-Chairs]): <i>Phase II Glioblastoma Accelerated Biomarkers Learning Environment Trial (GABLE)</i> .

PARTICIPATION IN OTHER FUNDED TRIALS

1.	2008-2009	Co-Investigator (Jeffrey Rogg, PI), A multicenter, randomized, double-blind, crossover, phase III study to determine the safety and efficacy of gadobutrol 1.0 molar (Gadovist®) in patients referred for contrast-enhanced MRI of the central nervous system Funded by Bayer Pharmaceuticals, Inc.
2.	2011-2012	Co-Investigator (Jeffrey Rogg, PI), <i>GEMSAV: Multicenter, open-</i> <i>label study to evaluate the safety and efficacy (by blinded reading)</i> <i>of contrast-enhanced magnetic resonance angiography (MRA)</i> <i>after a single intravenous injection of 0.1 mmol/kg gadobutrol in</i> <i>subjects with known or suspected vascular disease of the supra-</i> <i>aortic vessels</i> Funded by Bayer Pharmaceuticals, Inc.
3.	2011-2014	Central Neuroradiologist (Howard Safran, PI), <i>PPX and</i> <i>Concurrent Radiation for Newly Diagnosed Glioblastoma Without</i> <i>MGMT Methylation: A Randomized Phase II Study: BrUOG 244</i> Funded by Cell Therapeutics, Inc.

4.	2013-2018	Co-Investigator (Ott BR, PI), 221AD103: A Randomized, Double- Blinded, Placebo-Controlled Multiple Dose Study to Assess the Safety, Tolerability, Pharacokinetics and Pharmacodynamics of BIIB037 in Subjects with Prodromal or Mild Alzheimer's Disease. Funded by Biogen.
5.	2016-2018	Co-Investigator (Rogg JM, PI), <i>GDX-44-004: Phase IIB P03277</i> <i>Dose Finding Study in Central Nervous System (CNS) Magnetic</i> <i>Resonance Imaging (MRI).</i> Funded by Guerbet Pharmaceuticals.
6.	2019-2023	Co-investigator (Steve Toms, PI), <i>The Role of Epigenetic Regulation in Human Glioma: Non-Coding RNA and RNA Methylation.</i> Funded by the Warren Alpert Foundation Prize, 2% effort (8/2021-7/2023)
7.	2021-2022	Co-investigator (McTaggart R, site PI), <i>Multicenter, randomized, double-blinded, placebo-controlled, parallel group design to determine the safety and efficacy of intravenous RNS60 in subjects with acute ischemic stroke undergoing endovascular thrombectomy.</i> Funded by Revalesio 6.5.1.H1

GRANTS SUBMITTED, AWAITING DECISION

1.	February 2024	Co-Investigator (Heinrich Elinzano, PI), <i>Clinical Evaluation of</i> <i>Prostate-Specific Membrane Antigen Expression in Meningiomas</i> <i>as a Diagnostic Biomarker using Advanced Imaging and</i> <i>Radiomics</i> . Submitted to PAR-24-085: National Cancer Institute's Investigator-Initiated Early Phase Clinical Trials for Cancer Treatment and Diagnosis (R01 Clinical Trial Required).
2.	March 2023	Co-Investigator (Harrison Bai, PI), <i>Artificial intelligence to monitor and predict response to shunting based on imaging and CSF biomarkers in patients with idiopathic normal pressure hydrocephalus</i> . Submitted to Hydrocephalus Association Innovator Awards.

UNIVERSITY TEACHING, ADVISING AND MENTORING ROLES

TEACHING ASSIGNMENTS

RAD 6290: Clerkship in Diagnostic Radiology The Warren Alpert Medical School of Brown University 2002-Present Review of neuroradiology teaching cases with medical students in order to familiarize them with the breadth of neurologic imaging techniques and applications.

RAD 6330: Cross Sectional Imaging in Clinical Medicine The Warren Alpert Medical School of Brown University 2002-Present Review of neuroradiology cases performed at Rhode Island Hospital while reading out with the radiology residents.

RAD 6360: Neuroradiology The Warren Alpert Medical School of Brown University 2011-Present

Co-director (2011-2022) and **Director** (2023-present) of a one-month neuroradiology elective. The goal of this elective is to expose the medical student to non-invasive and invasive forms of neuroradiology and reinforce the student's knowledge of neuroanatomy and neuropathology.

PH 2620 Selected Topics in Molecular Biophysics, **lecturer** (*Susceptibility Contrast in MRI Applications*) Brown University Graduate School of Physics Course Director: Jay Tang, Ph.D. Lecture date: 5/1/2012.

BIOL 1200 Protein Biophysics and Structural Biology, lecturer (Susceptibility Contrast in MRI Applications)
Brown University Graduate School of Biology
Course Director: Wolfgang Peti, Ph.D.
Lecture dates: 4/30/2013 and 4/29/2014.

BIOL 3652 Integrated Medical Science II: Brain Sciences, **Group leader** for "Small Groups" teaching sessions for 1st year Brown medical students taking the required Brain Sciences section. The Warren Alpert Medical School of Brown University (Basic Science) 2011-present Recent session dates: 2/8/2017, 3/1/2017, 2/2/2018, 2/12/2018.

BIOL 3652 Integrated Medical Science II: Brain Sciences, **lecturer** (*Advanced MRI Techniques in Neuroradiology*) The Warren Alpert Medical School of Brown University (Basic Science) Lecture date: February 2012.

BIOL 6674 Introduction to Diagnostic Imaging, lecturer (Advanced Neuro MRI Applications

and Neuroradiology Principles, Common Imaging Applications, and Case Review)
The Warren Alpert Medical School of Brown University
Course Director: Don Yoo, M.D.
2016-present
Lecture dates: 5/10/2016, 11/8/2016.

CNS-5325 Clerkship in Neurology, **Director** (2015-2024) and **Co-Director** (2024-present) of the neuroradiology component and **lecturer** (*Introduction to Neuroradiology: Basic Principles, Common Imaging Indications, and Case Review*) to all 3rd-year medical students taking this required elective. The Warren Alpert Medical School of Brown University

Lecture dates: $\frac{8}{12}/2015$, $\frac{11}{11}/2015$, $\frac{2}{10}/2016$, $\frac{6}{1}/2016$, $\frac{8}{3}/2016$, $\frac{11}{2}/2016$, $\frac{2}{1}/2017$, $\frac{5}{31}/2017$, $\frac{8}{2}/2017$, $\frac{11}{1}/2017$, $\frac{1}{31}/2018$, $\frac{5}{30}/2018$, $\frac{8}{1}/2018$, $\frac{10}{31}/2018$, $\frac{1}{30}/2019$, $\frac{6}{5}/2019$, $\frac{8}{28}/2019$, $\frac{10}{30}/2019$, $\frac{1}{29}/2020$, $\frac{6}{24}/2020$, $\frac{8}{26}/2020$, $\frac{1}{27}/2021$, $\frac{3}{24}/2021$, $\frac{5}{24}/2021$, $\frac{7}{28}/2021$, $\frac{10}{27}/2021$, $\frac{2}{23}/2022$, $\frac{8}{31}/2022$, $\frac{11}{2}/2022$, $\frac{5}{31}/23$, $\frac{8}{30}/23$, $\frac{2}{7}/24$.

Radiology Lecture Series for Primary Care-Population Medicine Program Longitudinal Integrated Clerkship (LIC), **lecturer** (*Introduction to Neuroradiology: Basic Principles, Common Imaging Indications, and Case Review*). The Warren Alpert Medical School of Brown University

Course Director: Don Yoo, M.D. 2016-present

ADVISING ROLES

UNDERGRADUATE THESIS COMMITTEES

2017-2018Ashley Aldridge (Bachelor of Arts with Honors)
Program in Liberal Medical Education, concentration in Health
and Human Biology, Brown University
Second Reader (Wael Asaad, thesis advisor)
<u>Thesis</u>: Factors Contributing to Brain Shift in Deep Brain
Stimulation Surgery

GRADUATE THESIS COMMITTEES

2017-2019Menghan Hu (Ph.D. candidate)Department of Biostatistics, Brown University School of Public
HealthMember of Thesis Committee (Ani Eloyan, thesis advisor)
Thesis: Statistical Methods for Longitudinal Magnetic Resonance
Imaging for Multiple Sclerosis (Thesis defense in August 2019)

RESEARCH SUPERVISION AND MENTORING ROLES

Matthew Lee, Medical student, Warren Alpert Medical School.

Dates of mentorship: 2017-2019.

Role: Research advisor and career mentor during medical school; faculty advisor during a one-month independent study period.

Published abstracts:

Lee et al. Utility of Percent Signal Recovery and Average Baseline Signal in DSC-MRI Optimized for rCBV Measurement for Differentiation of GBM, Metastasis, Lymphoma and Meningioma. Platform presentation at ASNR American Society of Neuroradiology 56th Annual Meeting, Vancouver, BC, June 4, 2018, presentation O-35.

Accepted papers:

Lee et al. Utility of Percent Signal Recovery and Average Baseline Signal in DSC-MRI Optimized for rCBV Measurement for Differentiation of GBM, Metastasis, Lymphoma and Meningioma. AJNR Am J Neuroradiol. 2019 Sep;40(9):1445-1450. PMID: 31371360.

Samuel Latzman, Undergraduate student, Brown University (Program in Liberal Medical Education).

Dates of mentorship: 2023-Present.

Role: Research mentor during undergraduate training at Brown prior to medical school.

HOSPITAL TEACHING, ADVISING AND MENTORING ROLES

TEACHING ASSIGNMENTS

Weekly neuro-oncology tumor board, Rhode Island Hospital, **primary covering neuroradiologist** (Review all imaging studies at each conference)

Weekly neurosurgery grand rounds, Rhode Island Hospital, **shared coverage** (Review all imaging studies at each conference)

Weekly neurology conference (neuroradiology case review), Rhode Island Hospital, **shared coverage** (Review all imaging studies at each conference)

Twice/month pediatric neuro-oncology tumor board, Rhode Island Hospital, **shared coverage** (Review all imaging studies at each conference)

Twice/month head & neck tumor board, Rhode Island Hospital, **shared coverage** (Review all imaging studies at each conference)

Monthly comprehensive epilepsy case conference, Rhode Island Hospital, **shared coverage** (Review all imaging studies at each conference)

Radiology Residents: Neuroradiology Case Conference, Rhode Island Hospital (Attend and

participate, 1/month)

Radiology Residents: Imaging Conference, Rhode Island Hospital (Attend and participate, 2/month)

Radiology Residents: approx. 10 didactic teaching and case review sessions per year

Radiology Residents—MRI physics (2 lectures/year)

Developed the MR physics curriculum for the Department of Diagnostic Imaging residents dealing with pulse sequences, image characteristics, image artifacts, and special acquisition methods.

Medicine Residents—Introduction to Neuroradiology and Neuroradiology Services at RIH (1 lecture/year)

RESEARCH SUPERVISION AND MENTORING ROLES

Marc Goldman, Resident, Department of Neurosurgery, Warren Alpert Medical School.

Dates of mentorship: 2004-2008.

Role: Research advisor during residency.

Published abstracts:

Goldman et al. The utility of apparent diffusion coefficient for predicting response of non-small cell lung cancer brain metastases to stereotactic radiosurgery. American Society of Neuroradiology 44th Annual Meeting. San Diego, CA, 2006.

Goldman et al. The utility of apparent diffusion coefficient for predicting response of brain metastases to gamma knife radiosurgery. 13th International Meeting of the Leksell Gamma Knife Society, Seoul, Korea, May 21-25, 2006.

Goldman et al. Initial tumor volume decrease is not predictive of therapeutic response to gamma knife radiosurgery for intracranial breast and non-small cell lung metastases. 13th International Meeting of the Leksell Gamma Knife Society, Seoul, Korea, May 21-25, 2006

Published papers:

Goldman M et al. The Utility of Apparent Diffusion Coefficient in Predicting the Outcome of Gamma Knife Treated Brain Metastases Prior to Changes in Tumor Volume: a Preliminary Study. J Neurosurg 2006 Dec; 105(Suppl):175-182.

William Mehan, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2010-2012.

Role: Research advisor during residency.

Published abstracts:

Mehan et al. What Is the Added Value of CTP above CTA in Decision Making for Intra-Arterial Stroke Therapy? RSNA 96th Scientific Assembly, 2010, Presentation SSC12-05.

Published papers:

Boxerman et al. Clinical Stroke Penumbra: Use of NIH Stroke Scale as a Surrogate for CT Perfusion in Patient Triage for Intra-arterial MCA Stroke Therapy. AJNR Am J Neuroradiol 2012 33(10):1893-900.

Marissa Blitstein, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2010-2012.

Role: Research advisor during residency.

Published abstracts:

Blitstein et al. The Role of Longitudinal Perfusion-Weighted MRI Measures in Distinguishing Tumor Recurrence from Pseudoprogression in a Cohort of Patients with High-Grade Gliomas Receiving Radiation Therapy (IMRT), Temozolomide (TMZ) and Paclitaxel Poliglumex (PPX). American Society of Neuroradiology 49th Annual Meeting, Seattle, June 2011, Presentation 539.

Blitstein et al. Clinical correlation and significance of MRI findings in Chiari I malformation. American Society of Neuroradiology 49th Annual Meeting, Seattle, June 2011, Presentation 485.

Deepak Raghavan, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2010-2012.

Role: Research advisor during residency.

Published papers:

Raghavan et al. Glioblastoma Multiforme: Utilization of Advanced MRI Techniques for Preoperative Planning. Med Health RI 2012 Feb;95(2):42-3.

Raghavan et al. Radiation Necrosis of a High-Grade Glioma. Med Health RI 2012 May;95(5):159-60.

Joseph Farnam, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2013.

Role: Research advisor during residency.

Published abstracts:

Farnam et al. Extreme Pseudoprogression on MRI of High-grade Gliomas Treated with Paclitaxel Poliglumex: Comparison with Conventional Pseudoprogression and True Tumor Progression. American Society of Neuroradiology 51st Annual Meeting, San Diego, May 2013, presentation as an education exhibit (EdE-16).

Elizabeth Dibble, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2014-2016.

Role: Research advisor during residency.

Published abstracts:

Dibble et al. Toxoplasmosis versus Lymphoma: Cerebral Lesion Characterization

Using Dynamic Susceptibility Contrast MRI and Relative Cerebral Blood Volume Estimates. American Society of Neuroradiology 53rd Annual Meeting, Chicago, April 2015, oral presentation O-173.

Published papers:

Dibble et al. Toxoplasmosis versus Lymphoma: Cerebral Lesion Characterization Using DSC-MRI Revisited. Clin Neurol Neurosurg. 2017 Jan;152:84-89.

Amanda Baker, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2016-2019.

Role: Research advisor during residency.

Published abstracts:

Baker et al. Radiographically Occult Tethered Cord in Pediatric and Adult Patients. Platform presentation at ASNR American Society of Neuroradiology 56th Annual Meeting, Vancouver, BC, June 5, 2018, presentation O-208.

Matthew Stib, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2018-2020.

Role: Research mentor during residency.

Published abstracts:

Stib et al. Localizing Large Vessel Occlusions on CT Angiography Using a 3-D Deep Learning Model. Poster presentation at International Stroke Conference 2019, Honolulu, HI.

Stib et al. Deep Learning in Emergent Large Vessel Occlusion Detection using Maximum Intensity Projections via CT Angiography. Poster presentation at SIIM Machine Learning Conference, San Francisco, September 2018.

Published papers:

Stib et al. Detecting Large Vessel Occlusion on Multiphase CT Angiography Using a Deep Convolutional Neural Network. Radiology. 2020 Dec;297(3):640-649.

Jonathan Stone, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2020-2023.

Role: Research mentor during residency.

Published papers:

Stone et al. ALK-positive Inflammatory Myofibroblastic Tumor Mimicking Meningioma: A Case Report. Accepted to Neurographics, January 2021.

Gerald Riccardello, Resident, Department of Diagnostic Imaging, Warren Alpert Medical School.

Dates of mentorship: 2020-2023.

Role: Research mentor during residency.