COLLEGE OF MEDICINE
CURRICULUM VITAE

Name: Leonardo Fator Gouvea Bonilha **Birth Place:** Campinas, SP, Brazil
Birth Date: 06/03/1976
Home Address: 1205 Leaning Oaks Ct, Charleston SC 29466 **Phone**: 803 556 4456
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Citizenship and/or Visa Information: US Citizen

Education (Beginning with Baccalaureate Degree):

Institution/Location	Years	Degree/Date	Field of Study
State University of Campinas, Brazil	1994-1999	MD	Medicine
State University of Campinas, Brazil	2002-2004	PhD	Neurosciences

Internship:

Institution/Location	Years	Degree/Date	Field of Study
State University of Campinas, Brazil	1998-1999	Intern	Medicine
Medical University of South Carolina	2007-2008	Intern	Medicine

Residencies or Post Doctoral:

Institution/Location	Years	Degree/Date	Field of Study
State University of Campinas, Brazil	2000-2002	Neurology	Neurology
Medical University of South Carolina	2008-2011	Neurology	Neurology
University of Nottingham	2004-2005	Post-Doc	Neurosciences

Specialty/Board Certification:	Years
Diplomate, Neurology, Brazilian Academy of Neurology	2003-
Diplomate, Neurology, American Board of Psychiatry and Neurology	2011 – 2021
Diplomate, American Board of Clinical Neurophysiology	2012 – 2022
Diplomate, American Board of Clinical Neurophysiology –Epilepsy Monitoring	2012 – 2022
Diplomate, Epilepsy, American Board of Psychiatry and Neurology	2014 – 2024

Licensure: South Carolina, 2011- Present
Military Service: N/A
Faculty Appointments (Begin with initial appointment):

Institution/Location Rank	Department	Years
University of South Carolina Research Assistant Professor	Communication Sciences and Disorders	2005-2007
Medical University of South Carolina Assistant Professor	Neurology and Neurosurgery	2012-

Administrative Appointments:

Institution/Location Rank	Department	Years
Medical University of South Carolina Chief Resident	Neurology and Neurosurgery	2010-11

Hospital Appointments/Privileges:

Institution/Location	Years
Medical University of South Carolina.	2012- Present
South Carolina REACH (Remote Evaluation of Acute ischemic Stroke) Hospital network	2014- Present

Other Experience:

Institution/Location	Department	Rank	Years
Rank			
State University of Campinas (HES)	Critical Care	Staff Physician	2002-2004

Membership in professional/scientific societies (include offices held):

Active Member: American Academy of Neurology
Active Member: American Clinical Neurophysiology Society
Active Member: American Epilepsy Society
Active Member: Society for the Neurobiology of Language

Extramural Grants (current and past):

As Principal Investigator:

Brain Connectivity Supporting Language Recovery in Aphasia. R01DC014021
Funding period: 07/01/2014 – 07/01/2019
PI: Leonardo Bonilha
Funding source: National Institute on Neurological Disorders and Stroke (NIH)
Purpose: To investigate how residual structural connectivity enables recovery from aphasia in individuals who suffered a stroke.
Role/level of effort: 25%

Influence of Pre-Morbid Brain Health on Stroke Recovery. 15SFDRN26030003
Funding period: 07/01/2014 – 07/01/2019
PI: Leonardo Bonilha
Funding source: American Heart Association (AHA)
Purpose: To investigate how pre-stroke brain health can affect recovery from stroke with regards to focal neurological deficits and quality of life.
Role/level of effort: 25%

As Co-Investigator:

Trans-cranial Direct Current Stimulation to Treat Aphasia: Phase II Trial. U01DC011739
Funding period: 04/09/2012 – 04/09/2017
PI: Julius Fridriksson (University of South Carolina)
Funding source: National Institute on Deafness and Communication Disorders (NIH)
Purpose: To investigate brain damage associated with aphasia in stroke patients.
Role/level of effort: 18%

FMRI in Anterior Temporal Epilepsy Surgery (FATES). R01 NS035929-10A1
PI: Jeffrey Binder (Medical College of Wisconsin)
Funding source: National Institute of Neurological Disorders and Stroke (NINDS)
Purpose: To investigate the role of fmri in predicting language and memory outcomes in temporal lobe epilepsy surgery.
Role/level of effort: 6.5%

Diffusional Kurtosis MRI Evaluation of Medial Temporal Lobe Epilepsy.
Funding period: 07/01/2013 – 07/01/2014
PI: Ali Tabesh (Medical University of South Carolina)
Funding source: Radiological Society of North America.
Purpose: To investigate the role of new MRI sequences in disclosing structural abnormalities related to epilepsy.
Role/level of effort: 5%

Dissociating Components of the Attentional Network in Neglect. R01 NS054266
Funding period: 8/1/2006-7/31/2011
PI: Chris Rorden (University of South Carolina)
Funding source: National Institute on Neurological Disorders and Stroke (NIH)
Purpose: To investigate brain damage associated with neglect in stroke patients.
Role/level of effort: 5%

Neural correlates of aphasia recovery. R01 DC008355
Funding period: 04/01/2007 – 03/31/2012
PI: Julius Fridriksson (University of South Carolina)
Funding source: National Institute on Deafness and Communication Disorders (NIH)
Purpose: To investigate brain damage associated with aphasia in stroke patients.
Role/level of effort: 2.5%

Intramural Grants (current and past):

As Principal Investigator:

Presurgical structural connectivity as predictor of post-surgical seizure outcome in medial temporal lobe epilepsy.
Funding period: 05/01/2014 – 04/30/2015
PI: Leonardo Bonilha
Funding source: South Carolina Translational Research Institute
Purpose: To evaluate whether whole brain connectome measures can be used to predict the outcome of epilepsy surgery.
Role/level of effort: No salary support.

Treatment Response and Microstructure in Partial Epilepsy.
Funding period: 8/18/2012 – 8/18/2013
PI: Leonardo Bonilha
Funding source: South Carolina Translational Research Institute
Purpose: To evaluate whether microstructural abnormalities shown by diffusion MRI sequences are related to treatment response in epilepsy.
Role/level of effort: No salary support.

As Co-Investigator:

Identifying the Microstructural Markers of Recovery from Aphasia
Funding period: 8/1/2011 – 7/1/2012
PI: Joseph Helpern
Funding source: South Carolina Clinical and Translational Research Institute.
Purpose: To investigate structural changes related to recovery from aphasia.
Role/level of effort: No salary support.

Honors and Awards:

1995 - 2000 Six-year education grant from "CAPES - Brazilian Federal Agency for the Support and Evaluation of Graduate Education" achieved through performance in Medical School
2002 - 2003 PhD studentship funded by the National Commission for the Progress of Science (CNPQ), Brazilian funding agency (L.Bonilha, L.M.Li; Extent of Neuronal Damage in Medial Temporal Lobe Epilepsy)
2003 Young Investigator Bursary Award – 25th International Epilepsy Congress, Lisbon, Portugal

2008 Young Investigator Travel Award – 62nd American Epilepsy Society Meeting – Seattle, WA
2009 Best Presentation– Neurology Resident Research Day- Medical University of South Carolina, SC
2009 Highest Score in Residency In-Service Training Examination (RITE)–Medical University of South Carolina, SC
2009 Golden Apple Teaching Award Nomination- Medical University of South Carolina, SC
2010 Best Presentation– Neurology Resident Research Day- Medical University of South Carolina, SC
2010 Highest Score in Residency In-Service Training Examination (RITE)–Medical University of South Carolina, SC
2011 Best Presentation– Neurology Resident Research Day- Medical University of South Carolina, SC
2011 Highest Score in Residency In-Service Training Examination (RITE)–Medical University of South Carolina, SC
2014-2015 Faculty Excellence Award (FEA) – MUSC College of Medicine

Peer reviewed publications:

1. Borges G, Maciel Junior JA, Carelli EF, Alvarenga M, De Castro R, Bonilha L. Pilonidal cyst on the vault. Case report. Arquivos de neuro-psiquiatria 1999;57:273-276.
2. Borges G, Zambelli HJ, Fernandes YB, Carelli EF, Bonilha L. Arachnoid cyst: adversity and plasticity. Arquivos de neuro-psiquiatria 1999;57:377-381.
3. Bonilha L, Borges G, Fernandes YB, Ramina R, Carelli EF, Alvarenga M. Pilocytic astrocytoma following radiotherapy for craniopharyngioma: case report. Arquivos de neuro-psiquiatria 2000;58:731-735.
4. Borges G, Bonilha L, Maldaum MV, Menezes JR, Zanardi V. Acute cervical epidural hematoma: case report. Arquivos de neuro-psiquiatria 2000;58:726-730.
5. Borges G, Bonilha L, Santos SF, et al. Thrombosis of the internal carotid artery secondary to soft palate injury in children and childhood. Report of two cases. Pediatric neurosurgery 2000;32:150-153.
6. Bonilha L, Marques EL, Carelli EF, et al. Risk factors and outcome in 100 patients with aneurysmal subarachnoid hemorrhage. Arquivos de neuro-psiquiatria 2001;59:676-680.
7. Bonilha L, Fernandes YB, Mattos JP, Borges WA, Borges G. Bilateral internuclear ophthalmoplegia and clivus fracture following head injury: case report. Arquivos de neuro-psiquiatria 2002;60:636-638.
8. Bonilha L, Kobayashi E, Castellano G, et al. Texture analysis of hippocampal sclerosis. Epilepsia 2003;44:1546-1550.
9. Bonilha L, Kobayashi E, Cendes F, Li LM. Effects of method and MRI slice thickness on entorhinal cortex volumetry. Neuroreport 2003;14:1291-1295.
10. Bonilha L, Kobayashi E, Rorden C, Cendes F, Li LM. Medial temporal lobe atrophy in patients with refractory temporal lobe epilepsy. Journal of neurology, neurosurgery, and psychiatry 2003;74:1627-1630.
11. Bonilha L, Mattos JP, Borges WA, Fernandes YB, Andrioli MS, Borges G. Chronic epidural hematoma of the vertex. Clinical neurology and neurosurgery 2003;106:69-73.
12. Bonilha L, Rorden C, Kobayashi E, et al. Voxel based morphometry study of partial epilepsies. Arquivos de neuro-psiquiatria 2003;61 Suppl 1:93-97.
13. Caselato GR, Kobayashi E, Bonilha L, et al. Hippocampal texture analysis in patients with familial mesial temporal lobe epilepsy. Arquivos de neuro-psiquiatria 2003;61 Suppl 1:83-87.
14. Kobayashi E, Bonilha L, Li LM, Cendes F. Temporal lobe hypogenesis associated with arachnoid cyst in patients with epilepsy. Arquivos de neuro-psiquiatria 2003;61:327-329.
15. Mattos JP, Bonilha L, Ferreira D, Borges W, Fernandes YB, Borges G. Multiple systemic metastases of posterior fossa - primitive neuroectodermal tumor (PF-PNET) in adult: case report. Arquivos de neuro-psiquiatria 2003;61:100-103.
16. Bonilha L, Cendes F, Ghizoni E, Vieira RJ, Li LM. Epilepsy due to a destructive brain lesion caused by a scorpion sting. Archives of neurology 2004;61:1294-1296.
17. Bonilha L, Kobayashi E, Cendes F, Min Li L. Protocol for volumetric segmentation of medial temporal structures using high-resolution 3-D magnetic resonance imaging. Human brain mapping 2004;22:145-154.
18. Bonilha L, Kobayashi E, Mattos JP, Honorato DC, Li LM, Cendes F. Value of extent of hippocampal resection in the surgical treatment of temporal lobe epilepsy. Arquivos de neuro-psiquiatria 2004;62:15-20.
19. Bonilha L, Li LM. Heavy coffee drinking and epilepsy. Seizure : the journal of the British Epilepsy Association 2004;13:284-285.

20. Bonilha L, Montenegro MA, Cendes F, Li LM. The role of neuroimaging in the investigation of patients with single seizures, febrile seizures, or refractory partial seizures. Medical science monitor : international medical journal of experimental and clinical research 2004;10:RA40-46.
21. Bonilha L, Rorden C, Castellano G, et al. Voxel-based morphometry reveals gray matter network atrophy in refractory medial temporal lobe epilepsy. Archives of neurology 2004;61:1379-1384.
22. Borges G, Bonilha L, Menezes AS, et al. Long term follow-up in a patient with papillary glioneuronal tumor. Arquivos de neuro-psiquiatria 2004;62:869-872.
23. Castellano G, Bonilha L, Li LM, Cendes F. Texture analysis of medical images. Clinical radiology 2004;59:1061-1069.
24. Amorim BJ, Etchebehere EC, Camargo EE, et al. Statistical voxel-wise analysis of ictal SPECT reveals pattern of abnormal perfusion in patients with temporal lobe epilepsy. Arquivos de neuro-psiquiatria 2005;63:977-983.
25. Bonilha L, Collares CF, do Amaral DA, Dantas Barcia S, de Almeida Oliveira AM, Li LM. Antiepileptic drugs: a study of 1028 cases registered by the Sao Paulo Intoxication Control Center. Seizure : the journal of the British Epilepsy Association 2005;14:170-174.
26. Bonilha L, Kobayashi E, Cendes F, Li LM. The importance of accurate anatomic assessment for the volumetric analysis of the amygdala. Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas / Sociedade Brasileira de Biofisica [et al] 2005;38:409-418.
27. Bonilha L, Rorden C, Castellano G, Cendes F, Li LM. Voxel-based morphometry of the thalamus in patients with refractory medial temporal lobe epilepsy. NeuroImage 2005;25:1016-1021.
28. Borges G, Bonilha L, Proa M, Jr., et al. Imaging features and treatment of an intradural lumbar cystic schwannoma. Arquivos de neuro-psiquiatria 2005;63:681-684.
29. Borges G, Pereira HC, Carelli EF, et al. Central neurocytoma: report of two cases. Arquivos de neuro-psiquiatria 2005;63:1084-1089.
30. Alessio A, Bonilha L, Rorden C, et al. Memory and language impairments and their relationships to hippocampal and perirhinal cortex damage in patients with medial temporal lobe epilepsy. Epilepsy & behavior : E&B 2006;8:593-600.
31. Bonilha L, Montenegro MA, Rorden C, et al. Voxel-based morphometry reveals excess gray matter concentration in patients with focal cortical dysplasia. Epilepsia 2006;47:908-915.
32. Bonilha L, Moser D, Rorden C, Baylis GC, Fridriksson J. Speech apraxia without oral apraxia: can normal brain function explain the physiopathology? Neuroreport 2006;17:1027-1031.
33. Bonilha L, Rorden C, Appenzeller S, Coan AC, Cendes F, Li LM. Gray matter atrophy associated with duration of temporal lobe epilepsy. NeuroImage 2006;32:1070-1079.
34. Coan AC, Bonilha L, Morgan PS, Cendes F, Li LM. T2-weighted and T2 relaxometry images in patients with medial temporal lobe epilepsy. Journal of neuroimaging : official journal of the American Society of Neuroimaging 2006;16:260-265.
35. Pellijeff A, Bonilha L, Morgan PS, McKenzie K, Jackson SR. Parietal updating of limb posture: an event-related fMRI study. Neuropsychologia 2006;44:2685-2690.
36. Ryan S, Bonilha L, Jackson SR. Individual variation in the location of the parietal eye fields: a TMS study. Experimental brain research 2006;173:389-394.
37. Almor A, Smith DV, Bonilha L, Fridriksson J, Rorden C. What is in a name? Spatial brain circuits are used to track discourse references. Neuroreport 2007;18:1215-1219.
38. Appenzeller S, Bonilha L, Rio PA, Min Li L, Costallat LT, Cendes F. Longitudinal analysis of gray and white matter loss in patients with systemic lupus erythematosus. NeuroImage 2007;34:694-701.
39. Bonilha L, Alessio A, Rorden C, et al. Extrahippocampal gray matter atrophy and memory impairment in patients with medial temporal lobe epilepsy. Human brain mapping 2007;28:1376-1390.
40. Bonilha L, de Vries PM, Vincent DJ, et al. Structural white matter abnormalities in patients with idiopathic dystonia. Movement disorders : official journal of the Movement Disorder Society 2007;22:1110-1116.
41. Bonilha L, Halford J, Rorden C, et al. Microstructural white matter abnormalities in nodular heterotopia with overlying polymicrogyria. Seizure : the journal of the British Epilepsy Association 2007;16:74-80.
42. Bonilha L, Rorden C, Halford JJ, et al. Asymmetrical extra-hippocampal grey matter loss related to hippocampal atrophy in patients with medial temporal lobe epilepsy. Journal of neurology, neurosurgery, and psychiatry 2007;78:286-294.
43. Bonilha L, Yasuda CL, Rorden C, et al. Does resection of the medial temporal lobe improve the outcome of temporal lobe epilepsy surgery? Epilepsia 2007;48:571-578.

44. Cannonieri GC, Bonilha L, Fernandes PT, Cendes F, Li LM. Practice and perfect: length of training and structural brain changes in experienced typists. Neuroreport 2007;18:1063-1066.
45. Fridriksson J, Bonilha L, Rorden C. Severe Broca's aphasia without Broca's area damage. Behavioural neurology 2007;18:237-238.
46. Fridriksson J, Moser D, Bonilha L, et al. Neural correlates of phonological and semantic-based anomia treatment in aphasia. Neuropsychologia 2007;45:1812-1822.
47. Guimaraes CA, Bonilha L, Franzon RC, Li LM, Cendes F, Guerreiro MM. Distribution of regional gray matter abnormalities in a pediatric population with temporal lobe epilepsy and correlation with neuropsychological performance. Epilepsy & behavior : E&B 2007;11:558-566.
48. Hirth VA, Davis B, Fridriksson J, Rorden C, Bonilha L. Cognitive performance and neural correlates of detecting driving hazards in healthy older adults. Dementia and geriatric cognitive disorders 2007;24:335-342.
49. Rorden C, Bonilha L, Nichols TE. Rank-order versus mean based statistics for neuroimaging. NeuroImage 2007;35:1531-1537.
50. Rorden C, Karnath HO, Bonilha L. Improving lesion-symptom mapping. Journal of cognitive neuroscience 2007;19:1081-1088.
51. Bonilha L, Cendes F, Rorden C, et al. Gray and white matter imbalance--typical structural abnormality underlying classic autism? Brain & development 2008;30:396-401.
52. Bonilha L, Molnar C, Horner MD, et al. Neurocognitive deficits and prefrontal cortical atrophy in patients with schizophrenia. Schizophrenia research 2008;101:142-151.
53. Fridriksson J, Moss J, Davis B, Baylis GC, Bonilha L, Rorden C. Motor speech perception modulates the cortical language areas. NeuroImage 2008;41:605-613.
54. Ruocco HH, Bonilha L, Li LM, Lopes-Cendes I, Cendes F. Longitudinal analysis of regional grey matter loss in Huntington disease: effects of the length of the expanded CAG repeat. Journal of neurology, neurosurgery, and psychiatry 2008;79:130-135.
55. Eckert MA, Lombardino LJ, Walczak AR, Bonihla L, Leonard CM, Binder JR. Manual and automated measures of superior temporal gyrus asymmetry: concordant structural predictors of verbal ability in children. NeuroImage 2008;41:813-822.
56. Bonilha L, de Vries PM, Hurd MW, et al. Disrupted thalamic prefrontal pathways in patients with idiopathic dystonia. Parkinsonism & related disorders 2009;15:64-67.
57. Bonilha L, Eckert MA, Fridriksson J, et al. Age-related relative volume preservation of the dominant hand cortical region. Brain research 2009;1305:14-19.
58. Bonilha L, Fridriksson J. Subcortical damage and white matter disconnection associated with non-fluent speech. Brain : a journal of neurology 2009;132:e108.
59. Bonilha L, Halford JJ. Network atrophy in temporal lobe epilepsy: a voxel-based morphometry study. Neurology 2009;72:2052; author reply 2052.
60. Bonilha L, Halford JJ, Rorden C, Roberts DR, Rumboldt Z, Eckert MA. Automated MRI analysis for identification of hippocampal atrophy in temporal lobe epilepsy. Epilepsia 2009;50:228-233.
61. Coan AC, Appenzeller S, Bonilha L, Li LM, Cendes F. Seizure frequency and lateralization affect progression of atrophy in temporal lobe epilepsy. Neurology 2009;73:834-842.
62. Fridriksson J, Moser D, Ryalls J, Bonilha L, Rorden C, Baylis G. Modulation of frontal lobe speech areas associated with the production and perception of speech movements. Journal of speech, language, and hearing research : JSLHR 2009;52:812-819.
63. Jacini WF, Cannonieri GC, Fernandes PT, Bonilha L, Cendes F, Li LM. Can exercise shape your brain? Cortical differences associated with judo practice. Journal of science and medicine in sport / Sports Medicine Australia 2009;12:688-690.
64. Moser D, Fridriksson J, Bonilha L, et al. Neural recruitment for the production of native and novel speech sounds. NeuroImage 2009;46:549-557.
65. Turner TH, Fridriksson J, Baker J, Eoute D, Jr., Bonilha L, Rorden C. Obligatory Broca's area modulation associated with passive speech perception. Neuroreport 2009;20:492-496.
66. Bonilha L, Edwards JC, Kinsman SL, et al. Extrahippocampal gray matter loss and hippocampal deafferentation in patients with temporal lobe epilepsy. Epilepsia 2010;51:519-528.
67. Bonilha L, Elm JJ, Edwards JC, et al. How common is brain atrophy in patients with medial temporal lobe epilepsy? Epilepsia 2010;51:1774-1779.
68. Fridriksson J, Bonilha L, Baker JM, Moser D, Rorden C. Activity in preserved left hemisphere regions predicts anomia severity in aphasia. Cerebral cortex 2010;20:1013-1019.

69. Fridriksson J, Kjartansson O, Morgan PS, et al. Impaired speech repetition and left parietal lobe damage. The Journal of neuroscience : the official journal of the Society for Neuroscience 2010;30:11057-11061.
70. Smith DV, Davis B, Niu K, et al. Spatial attention evokes similar activation patterns for visual and auditory stimuli. Journal of cognitive neuroscience 2010;22:347-361.
71. Binder JR, Gross WL, Allendorfer JB, et al. Mapping anterior temporal lobe language areas with fMRI: a multicenter normative study. NeuroImage 2011;54:1465-1475.
72. Kemmotsu N, Girard HM, Bernhardt BC, et al. MRI analysis in temporal lobe epilepsy: cortical thinning and white matter disruptions are related to side of seizure onset. Epilepsia 2011;52:2257-2266.
73. Richardson JD, Baker JM, Morgan PS, Rorden C, Bonilha L, Fridriksson J. Cerebral perfusion in chronic stroke: implications for lesion-symptom mapping and functional MRI. Behavioural neurology 2011;24:117-122.
74. Turan TN, Bonilha L, Morgan PS, Adams RJ, Chimowitz MI. Intraplaque hemorrhage in symptomatic intracranial atherosclerotic disease. Journal of neuroimaging : official journal of the American Society of Neuroimaging 2011;21:e159-161.
75. Bonilha L, Halford JJ, Morgan PS, Edwards JC. Hippocampal atrophy in temporal lobe epilepsy: the 'generator' and 'receiver'. Acta neurologica Scandinavica 2012;125:105-110.
76. Bonilha L, Martz GU, Glazier SS, Edwards JC. Subtypes of medial temporal lobe epilepsy: influence on temporal lobectomy outcomes? Epilepsia 2012;53:1-6.
77. Bonilha L, Nesland T, Martz GU, et al. Medial temporal lobe epilepsy is associated with neuronal fibre loss and paradoxical increase in structural connectivity of limbic structures. Journal of neurology, neurosurgery, and psychiatry 2012;83:903-909.
78. Christie J, Ginsberg JP, Steedman J, Fridriksson J, Bonilha L, Rorden C. Global versus local processing: seeing the left side of the forest and the right side of the trees. Frontiers in human neuroscience 2012;6:28.
79. Das A, Wallace GCt, Holmes C, et al. Hippocampal tissue of patients with refractory temporal lobe epilepsy is associated with astrocyte activation, inflammation, and altered expression of channels and receptors. Neuroscience 2012;220:237-246.
80. Fridriksson J, Hubbard HI, Hudspeth SG, et al. Speech entrainment enables patients with Broca's aphasia to produce fluent speech. Brain : a journal of neurology 2012;135:3815-3829.
81. Hui ES, Fieremans E, Jensen JH, et al. Stroke assessment with diffusional kurtosis imaging. Stroke; a journal of cerebral circulation 2012;43:2968-2973.
82. Rorden C, Bonilha L, Fridriksson J, Bender B, Karnath HO. Age-specific CT and MRI templates for spatial normalization. NeuroImage 2012;61:957-965.
83. Sainju RK, Wolf BJ, Bonilha L, Martz G. Relationship of number of seizures recorded on video-EEG to surgical outcome in refractory medial temporal lobe epilepsy. Arquivos de neuro-psiquiatria 2012;70:694-699.
84. Bonilha L, Helpern JA, Sainju R, et al. Presurgical connectome and postsurgical seizure control in temporal lobe epilepsy. Neurology 2013;81:1704-1710.
85. Deus-Silva L, Bonilha L, Damasceno BP, et al. Brain Perfusion Impairment in Neurologically Asymptomatic Adult Patients with Sickle-Cell Disease Shown by Voxel-Based Analysis of SPECT Images. Frontiers in neurology 2013;4:207.
86. Lee CY, Tabesh A, Benitez A, Helpern JA, Jensen JH, Bonilha L. Microstructural integrity of early- versus late-myelinating white matter tracts in medial temporal lobe epilepsy. Epilepsia 2013;54:1801-1809.
87. Magnusdottir S, Fillmore P, den Ouden DB, et al. Damage to left anterior temporal cortex predicts impairment of complex syntactic processing: a lesion-symptom mapping study. Human brain mapping 2013;34:2715-2723.
88. Sequeira KM, Tabesh A, Sainju RK, et al. Perfusion network shift during seizures in medial temporal lobe epilepsy. PloS one 2013;8:e53204.
89. Bonilha L, Nesland T, Rorden C, Fillmore P, Ratnayake RP, Fridriksson J. Mapping remote subcortical ramifications of injury after ischemic strokes. Behavioural neurology 2014;2014:215380.
90. Bonilha L, Nesland T, Rorden C, Fridriksson J. Asymmetry of the structural brain connectome in healthy older adults. Frontiers in psychiatry 2014;4:186.
91. Bonilha L, Rorden C, Fridriksson J. Assessing the clinical effect of residual cortical disconnection after ischemic strokes. Stroke; a journal of cerebral circulation 2014;45:988-993.
92. Bonilha L, Tabesh A, Dabbs K, et al. Neurodevelopmental alterations of large-scale structural networks in children with new-onset epilepsy. Human brain mapping 2014;35:3661-3672.
93. Breedlove J, Nesland T, Vandergrift WA, 3rd, Betting LE, Bonilha L. Probabilistic ictal EEG sources and temporal lobe epilepsy surgical outcome. Acta neurologica Scandinavica 2014;130:103-110.

94. Lee CY, Bonilha L, Nesland T, et al. Human brain asymmetry in microstructural connectivity demonstrated by diffusional kurtosis imaging. Brain research 2014.
95. Lee CY, Tabesh A, Spampinato MV, Helpern JA, Jensen JH, Bonilha L. Diffusional kurtosis imaging reveals a distinctive pattern of microstructural alternations in idiopathic generalized epilepsy. Acta neurologica Scandinavica 2014;130:148-155.

Selected Invited presentations (past 3 years):

1. Neurology Grand Rounds, Medical University of South Carolina, 2011.
2. Neurology Grand Rounds, Medical University of South Carolina, 2012.
3. Temporal Lobe Epilepsy Symposium, American Clinical Neurophysiology Society Meeting, San Antonio, TX, 2012.
3. Automated Image Analysis Symposium, European Congress of Epilepsy, London, England, 2012
4. Emergency Medicine Grand Rounds, Medical University of South Carolina, 2013.
5. Young Investigator's Workshop, American Epilepsy Society Meeting, Washington, DC, 2013.
7. Epilepsy Surgery Symposium, Southern EEG and Epilepsy Society Meeting, Chicago, IL, 2014.
8. Connectome uses applied to neurological conditions. University of South Carolina. Invited lecturer for course Neuroimaging: from image to inference, Course Code: PSYC589 (Undergrad) PSYC X888 (Grad), Columbia, SC, 2014.

Platform presentations in National and International Meetings (past 3 years):

1. Reduction of structural hub regions in new-onset pediatric epilepsy. American Epilepsy Society Meeting, San Diego, CA, 2012.

Poster presentations in National and International Meetings (past 3 years):

1. Graph Theory Measures May Correlate With Outcome After Temporal Lobectomy. G. Martz, L. Bonilha, M. Quigg, S. Johnson, X. Liu, J. L. Hudson, J. Swearingen. American Epilepsy Society Meeting, San Diego, CA, 2011.
2. Multiparametric MRI-Based Diagnostic Support Tool For Temporal Lobe Epilepsy. L. Bonilha, J. C. Edwards, A. Tabesh. American Epilepsy Society Meeting, San Diego, CA, 2011.
3. Medial temporal Lobe Epilepsy Is Associated With White Matter 'Short Circuits' Involving Medial Temporal And Limbic Structures. L. Bonilha, G. U. Martz, J. C. Edwards, A. Tabesh. American Epilepsy Society Meeting, San Diego, CA, 2011.
4. How Many Seizures Are Necessary For Surgical Decision Making? R. K. Sainju, L. F. Bonilha, B. J. Wolf, G. U. Martz. American Epilepsy Society Meeting, San Diego, CA, 2011.
5. Altered Global Structural Brain Networks In New-Onset Pediatric Epilepsy: Increased Segregation And Impaired Integration. K. Dabbs, A. Tabesh, Leonardo Bonilha, B. Hermann, D. Hsu, C. Stafstrom and J. Lin. American Epilepsy Society Meeting, San Diego, CA, 2012.
6. Diffusional Kurtosis Imaging Reveals Widespread Structural Abnormalities In Medial Temporal Lobe Epilepsy. A. Tabesh, J. Jensen, J. Helpern, M. Spampinato, J. Edwards and L. Bonilha. American Epilepsy Society Meeting, San Diego, CA, 2012.
7. Seizures Are Associated With A Functional Reorganization Of The Limbic System In Medial Temporal Lobe Epilepsy. K. Sequeira, R. Sainju, A. Tabesh, M. Ahlman, K. Spicer, J. Edwards and L. Bonilha. American Epilepsy Society Meeting, San Diego, CA, 2012.
8. Mapping The Landscape Of Cognitive Development In Children With Epilepsy. L. Bonilha, J. Lin, C. Stafstrom, D. Hsu, K. Dabbs, B. Hermann. American Epilepsy Society Meeting, Washington, DC, 2013.
9. Cortical stimulation combined with white matter tractography. Increased anatomical precision of pre-surgical intracranial mapping by combining white matter tractography with direct cortical stimulation. E. Kutluay, J.C. Edwards, S.S. Glazier, G. Martz, L. Bonilha. American Clinical Neurophysiology Society Meeting, Miami, FL, 2013.

Other Professional Activities:

Institution/Location	Role	Years

Neurosciences Neuroimaging Division	Co-Director	2012-present
Neurology Resident Clinic	Director	2013-present
Faculty Senate (MUSC – COM)	Senator Alternate	2014-present
Neurology Clerkship (MUSC-COM)	Coordinator (Epilepsy rotation)	2014-present
Neurology Residency Education Committee	Faculty Member	2012-present
Neurology Research Committee	Faculty Member	2012-present
Neurology Grant Review Committee	Faculty Member	2012-present
Faculty Search Committee (MUSC - CHP)	Faculty Member	2014-present
Faculty Affairs Research Focus Group (MUSC – COM)	Faculty Member	2014-present

Products or Patents:

U.S.S.N. 12/868,613 "Automatic MRI Quantification of Structural Body Abnormalities"
Ref: P0944: PPG Reference: MUSC 62.8401