

Curriculum Vitae

Jonathan J. Halford, MD

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Division of Adult Neurology
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Charleston, SC 29425

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EDUCATION

Clinical Neurophysiology

Clinical Neurophysiology Fellowship Program
Department of Medicine, Neurology Division
Duke University Medical Center
Durham, NC

July 2002 to June 2003

Psychiatry

Dual Neurology-Psychiatry Residency Program
Department of Psychiatry
Duke University Medical Center
Durham, NC

January 2000 to June 2002

Neurology

Dual Neurology-Psychiatry Residency Program
Department of Medicine, Neurology Division
Duke University Medical Center
Durham, NC

July 1997 to December 1999

Internal Medicine Internship

Department of Medicine
Virginia Commonwealth University
Richmond, VA

July 1996 to June 1997

Doctor of Medicine

Medical University of South Carolina
Charleston, SC

July 1991 to May 1996

Bachelor of Arts, Religious Studies

Graduated Cum Laude
Duke University
Durham, NC

August 1986 to May 1990

ACTIVITIES and ORGANIZATIONS

MEDICAL SCHOOL

Student Alumni Council – member 1991 to 1995
Coordinator, College of Medicine Charity Ball 1994
Christian Medical and Dental Society – member 1991 to 1993
Leadership Council, Christian Medical and Dental Society 1993-1994
Member of “MUSiCality” – an a cappella singing group for 1995 to 1996
Member, Charleston Symphony Singer’s Guild, 1995 to 1996

COLLEGE

Duke University Chapel Choir – member 1986 to 1989
South Carolina Rural Student Health Coalition – member 1987 to 1989

HONORS

Recipient of the Golden Apple Special Appreciation Award from the
medical school class of 1996 for teaching in Medical Neuroscience

BOARD CERTIFICATION

Diplomate, Neurology, American Board of Psychiatry and Neurology, 5/2002 –
12/31/2012; certificate # 51281
Diplomate, Psychiatry, American Board of Psychiatry and Neurology, 9/2003 –
12/31/2013; certificate # 53213
Diplomate, American Board of Clinical Neurophysiology, Advanced Neurophysiology and
Epilepsy Monitoring; 10/2005 – 12/31/2015
Diplomate, American Board of Sleep Medicine; March 22, 2005; certificate # 2692

CONFERENCES

International Epilepsy Society, Budapest, 2009
7th International Conference of ICA and Blind Signal Source Separation 2007, London
6th International Conference on ICA and Blind Signal Source Separation 2006,
Charleston SC
American Epilepsy Society 2003, 2004, 2005, 2006, 2007, 2008
American Clinical Neurophysiology Society, 2009
American Neuropsychiatric Association in Fort Myers, FL in February 2001
American Academy of Neurology 1998, 1999
Functional MRI Seminar at Massachusetts General Hospital Functional
Neuroimaging Center – October 17-21, 1995

SOCIETY MEMBERSHIPS

National Societies	American Academy of Neurology American Academy of Sleep Medicine American Clinical Neurophysiological Society American Epilepsy Society American Medical Society
Local Societies	South Carolina Neurological Society Charleston County Medical Society

PEER-REVIEWED PUBLICATIONS

Halford JJ. Computerized Epileptiform Transient Detection in Scalp EEG: Obstacles to Progress and the Example of Computerized ECG Interpretation. Accepted for publication in *Clinical Neurophysiology*. 2009.

Sperling MR, Greenspan A, Cramer J, Kwan P, Kälviäinen R, **Halford JJ.**, Schmitt J, Haas M, Yuen E, Cook T, and Novak G Carisbamate as adjunctive treatment of partial onset seizures in adults in two randomized, placebo-controlled trials. Accepted for publication in *Epilepsia*, 2009.

Bonilha, L. **Halford, JJ.** The influence of hippocampal atrophy on extra-hippocampal gray matter loss in temporal lobe epilepsy. *Neurology*. 72(23):2052, 2009.

Halford, JJ. LaPointe, M. Clinical Perspectives on Lacosamide. *Epilepsy Currents*. Volume 9, No. 1 (Jan-Feb) pp 1-9, 2009.

Bonilha, L, **Halford J**, Rorden C, Roberts D, Rumbolt Z, Eckert M. Automated MRI analysis for identification of hippocampal atrophy in temporal lobe epilepsy. *Epilepsia* 50(2):228-233, 2009.

Halford, JJ. Detection of Paroxysmal EEG Discharges using Multi-taper Blind Signal Source Separation. *Lecture Notes in Computer Science* Vol. 4666: 601-608, 2007 Sept.

Bonilha L. Rorden C. **Halford JJ.** Eckert M. Appenzeller S. Cendes F. Li LM. Asymmetrical extra-hippocampal grey matter loss related to hippocampal atrophy in patients with medial temporal lobe epilepsy *Journal of Neurology, Neurosurgery & Psychiatry*. 78(3):286-94, 2007 Mar.

Bonilha L, **Halford J**, Rorden C, Li LM, Patel A, Rumbolt Z, Morgan P. Microstructural white matter abnormalities in nodular heterotopia with overlying polymicrogyria. *Seizure*. 16(1):74-80, 2007 Jan.

Halford J, Mazeika G, Slifer S, Speer M, Saunders, AM. Strittmatter, WJ. Morgenlander, JC. APOE2 allele increased in tardive dyskinesia. *Movement Disorders*. 21(4):540-2, 2006 Apr.

Halford, JJ. Neurophysiologic correlates of psychiatric disorders and potential applications in epilepsy. *Epilepsy and Behavior*. Vol 4(4):375-385, 2003

Dell DL. **Halford JJ.** Dementia presenting as postpartum depression. *Obstetrics & Gynecology*. 99(5 Pt 2):925-8, 2002 May

BOOK CHAPTERS

Halford, JJ "Neurophysiologic Correlates of Psychiatric Disorders and Potential Applications in Epilepsy" in *Behavioral Aspects of Epilepsy*. Editors: S Schachter and G Holmes. Accepted for publication. 2007

ABSTRACT PRESENTATIONS

Kälviäinen R, Ben-Menachem E, Rosenfeld R, **Halford JJ**, Wiegand F, Schmitt J, Novak G. Six Month Efficacy and Tolerability Results of Carisbamate as Adjunctive Treatment of Partial Onset Seizures: Experience From Two Open Label Extension Studies. European Federation of Neurological Societies Meeting. Florence Italy. September 2009.

Kälviäinen R, Ben-Menachem E, Rosenfeld R, **Halford JJ**, Wiegand F, Schmitt J, Novak G. Six Month Efficacy and Tolerability Results of Carisbamate as Adjunctive Treatment of Partial Onset Seizures: Experience From Two Open Label Extension Studies. 28th International Epilepsy Congress, Budapest. June 2009.

Shiau DS, Chien JH, **Halford J**, Kelly KM, Sackellares JC Epileptic Seizure Prediction by Scalp EEG Analysis. Fourth International Workshop on Seizure Prediction (ISPW4). Kansas City, June 2009

Pressly WB, **Halford JJ**, Dean BC. Distributed Clinical Research Software for Studying Paroxysmal Electroencephalographic Events. American Clinical Neurophysiology Society. Orlando, FL March 2009.

Dean BC, Pressly WB, **Halford JJ**. Optimal Window Lengths for EEG Spike Detection Using Independent Component Analysis as a Preprocessing Step. American Clinical Neurophysiology Society. Orlando, FL March 2009.

Halford JJ, Pressly WB, Dean BC. Paroxysmal Electroencephalographic Event Labelling and Categorization Using Distributed Clinical Research Software. American Clinical Neurophysiology Society. Orlando, FL March 2009.

Sperling M, Greenspan A., Cramer J., Kwan P., Kailvainen R., **Halford J.**, Schmitt J., Haas M., Novak G. Carisbamate as adjunctive treatment of partial onset seizures in adults in two international, randomized, placebo-controlled trials. Accepted for presentation. American Epilepsy Society Meeting, Seattle December 2008.

Bonilha L, Rorden C, Rumbolt Z, Roberts D, **Halford JJ**. Impaired connectivity in patients with medial temporal lobe epilepsy: relationship with hippocampal deafferentation and regional brain atrophy. Accepted for presentation. American Epilepsy Society Meeting, Seattle December 2008.

Halford JJ, McDonald CR, Rumbolt Z, Roberts DR, Bonilha L. Voxel based morphometry and cortical thickness analysis of medial temporal lobe epilepsy – same or different? Accepted for presentation. American Epilepsy Society Meeting, Seattle December 2008.

Halford JJ, Rumboldt Z, Roberts D, Rorden C, Morgan P, Bonilha L “Hippocampal deafferentation and extra-temporal atrophy in temporal lobe epilepsy” American Epilepsy Society Meeting, Philadelphia, PA December 2007

Bonilha L, Eckert M, Rorden C, Rumboldt Z, Roberts D, **Halford JJ** “Can automated voxel-wise analysis of MRI help the detection of hippocampal sclerosis?” American Epilepsy Society Meeting, Philadelphia, PA December 2007

Halford, J. “Analysis of Temporal Lobe Paroxysmal Events Using Independent Component Analysis”. American Epilepsy Society Annual Meeting, San Diego, CA. December 2006

Halford, J. Husain, A. “Stimulus-Sensitive Status Epilepticus” at the American Epilepsy Society Meeting in Seattle, WA. December 2002

Vincent DJ, **Halford J**, Steedman J, Wright AC, Webb J, Pecheny A, Bohning DE, Frey D, Cure J, Horton J, Young J, Dannels WR, George MS: “An Initial Clinical Study Using Echoplanar BOLD fMRI to Determine Language Location by Hemisphere. 2nd International Conference on Functional Mapping of the Human Brain. June 17-21, 1996, Boston, MA.

Vincent DJ, Bryant AE, Roberts DR, **Halford JJ**, Worthington WC, Vera CL, George MS: "Preliminary Results of Multi Modality Presurgical Evaluation for Intractable Epilepsy." 26th Annual Meeting Society for Neuroscience, Washington, DC, November 16-21, 1996.

RESEARCH GRANTS

NIH/NINDS (R01-NS050582-01A1) On Line Real Time Seizure Prediction. Goal: Specific Aims of the project are to test seizure-prediction algorithms of extracranial and intracranial datasets. Role: Sub-investigator (PI - Chris Sackellares MD at Optima Neurosciences, Inc.) \$35,000. 2008 – 2010

Neuropace. Multi-site, randomized, double-blind, Programmable device, responsive neuron-stimulator (RNS) vs. sham-stimulation to treat partial epilepsy and open-treatment multi-year extension. 2008-2010. \$100,000. I am a co-investigator for this multicenter phase III study (PI at MUSC – Edwards).

EPY3007: A Randomized, Double-Blind, Parallel-Group, Multicenter Study to Evaluate the Retention Rate, Efficacy, Safety, and Tolerability of Carisbamate, Topiramate and Levetiracetam as Adjunctive Therapy in Subjects with Partial Onset Seizures. Johnson and Johnson Pharmaceutical Research Division. Role: PI for one site (MUSC) in the multicenter phase III study. \$100,000 2009-2010

EPY3013/3014: A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Multicenter Study to Evaluate the Efficacy, Safety and Tolerability of Carisbamate as Adjunctive Therapy in Subjects With Partial Onset Seizures, Followed by an Open-Label Extension Study. Johnson and Johnson Pharmaceutical Research Division. Role: PI for one site (MUSC) in the multicenter phase III study. \$250,000 2009-2010

2007-G000-304: A Double-Blind, Placebo-Controlled, Dose-Escalation Parallel-Group Study to Evaluate the Efficacy and Safety of E2007(perampanel) Given as Adjunctive Therapy in Subjects with Refractory Partial Seizures. Eisai Medical Research, Inc. Role: PI for one site (MUSC) in this multicenter phase III study. \$150,000. 2008-2010.

K826-05-3001: A Phase 3, Randomized, Double-Blind, Parallel, Placebo-Controlled, Multicenter Study, with Optional Open-Label Continuation, of the Efficacy and Safety of Vanquix™ Auto-Injector (Diazepam Injection) for the Management of Selected, Refractory, Patients with Epilepsy who Require Intermittent Medical Intervention to Control Episodes of Acute Repetitive Seizures. King Pharmaceuticals, Inc. Role: PI for one site (MUSC) in this multicenter phase III study. 2008-2010.

EPY3001/3004: A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Multi-center Study to Evaluate the Efficacy, Safety and Tolerability of RWJ 333369 (carisbamate) as Adjunctive Therapy in Subjects with Partial Onset Seizures Followed by an Open-Label Extension Study. Johnson and Johnson Pharmaceutical Research Division. Role: PI for one site (MUSC) in this multicenter phase III study. \$250,000. 2006-2010

Computer-Aided Diagnosis of Subtle Brain Injury. South Carolina Health Science Foundation (Duke Endowment). Role: co-investigator (PI: Mark Eckert PhD at MUSC). \$90,000. 2007-2008

SP754: A Multicenter, Double-blind, Randomized, Placebo-controlled, Parallel-group Trial to Investigate the Efficacy and Safety of SPM 927 (400 and 600mg / day) as Adjunctive Therapy in Subjects with Partial Seizures with or without Secondary Generalization. Schwarz Biosciences. Role: PI for one site (MUSC) in this multicenter phase III study. \$150,000. 2006-2007

SP756: An Open-label Extension Trial to Determine Safety and Efficacy of Long-term Oral SPM 927 in Patients with Partial Seizures. Schwarz Biosciences. Role: PI for one site (MUSC) in this multicenter phase III study. \$100,000. 2006-2008

VNS Effects on Pain Perception and Auditory Evoked Potentials as a Predictor of Clinical Response in Adults Receiving VNS for Depression. Cyberonics, Inc. I am a co-PI for this study. \$120,000. 2005-2007

WORK EXPERIENCE

Assistant Professor of Neurosciences, Medical University of South Carolina, Charleston, SC – September 2003 to present
Staff neurologist, Ralph H. Johnson VA Medical Center, Charleston, SC -- July 2004 to the present
Assistant Professor of Psychiatry, Medical University of South Carolina, Charleston, SC – July 2005 to present
Neurology Consultant, Part-time, Dorothea-Dix Hospital, Raleigh NC – July 2002 to July 2003
Internal Medicine After-hours Physician, Part-time, John Umstead Hospital, Butner NC – March 2000 to July 2003
Clinical Neurophysiology Fellow, Duke Medical Center – July 2002 to July 2003
Psychiatry Resident, Duke Medical Center – January 2000 to June 2002
Neurology Chief Resident, Duke Medical Center – July 1999 to December 1999
Neurology Resident, Duke Medical Center – July 1997 to December 1999
Intern in Internal Medicine, Medical College of Virginia, Richmond VA – July 1996 to June 1997
Computer Technician and Research Assistant, Neuroimaging Center, Medical University of South Carolina – July 1995 to June 1996 (programming/signal processing)
Instructor of Gross Anatomy for the College of Medicine at the Medical University of South Carolina – fall 1993
Instructor in Anatomy and Physiology for the Health Careers Opportunity Program at the Medical University of SC – July 1994
Instructor in Physiology for the Health Careers Opportunity Program at The Medical University of SC – summer 1993
Teaching Assistant in Medical Neuroscience – spring 1993
Teaching Assistant in Medical Gross Anatomy – fall 1991
Computer Technician, Part-time, National Biomedical Simulation Resource, Duke University, 1986 to 1990 (programming, hardware installation)