

**2010-2011**  
**Summary of Scholarly Activities**  
**Department of Neurology**

**I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS**

Bird S, Bassam BA. Neuromuscular complications of critical illness. AANEM Neuromuscular Update. 2011 Sep;2:7-15.

Darbin O, Risso JJ, Carre E, Lonjon M, Naritoku D. Striatal energetic homeostasis under anaesthetic conditions. Brain Res. 2011 May 4;1388:157-66.

Eckstein C, Syc S, Saidha S. Differential diagnosis of longitudinally extensive transverse myelitis in adults. Eur Neurolog J. 2011;3(1). Available from: <http://www.slm-neurology.com/journal/the-european-neurological-journal/enj-vol-iii-issue-1>

Georgiadis AL, Cordina SM, Qureshi AI. Epistaxis. In: Qureshi AI, editor. Textbook of interventional neurology. Cambridge: Cambridge University Press; 2011. Chapter 20, p. 419-27.

Hassan AE, Cordina SM, Hussein HH, Bhatt DL, Qureshi AI. Pathophysiological and pharmacological treatment of thromboembolic and ischemic complications associated with endovascular procedures. In: Qureshi AI, editor. Textbook of interventional neurology. Cambridge: Cambridge University Press; 2011. Chapter 3, p. 30-57.

Lafreniere-Roula M, Darbin O, Hutchison WD, Wichmann T, Lozano A, Dostrovsky JO. Apomorphine reduces subthalamic neuronal entropy in parkinsonian patients. Exp Neurol. 2010 Oct;225(2):455-8.

Ramsay E, Faught E, Krumholz A, Naritoku D, Privitera M, Schwarzman L, Mao L, Wiegand F, Hulihan J. Efficacy, tolerability, and safety of rapid initiation of topiramate versus phenytoin in patients with new-onset epilepsy: a randomized double-blind clinical trial. Epilepsia. 2010 Oct;51(10):1970-7.

Saidha S, Eckstein C, Ratchford J. Optical coherence tomography for the detection of axonal damage in multiple sclerosis. CML Ophthalmol. 2010;20(3):77-88.

Saidha S, Eckstein C, Ratchford J. Optical coherence tomography as a marker of axonal damage in multiple sclerosis. CML Multiple Sclerosis. 2010;2(2):33-44.

Saidha S, Syc S, Eckstein C, Warner C, Farrell S, Oakley J, Durbin M, Meyer S, Balcer L, Frohman E, Ratchford J, Calabresi P. Primary retinal pathology in multiple sclerosis as detected by optical coherence tomography. Brain. 2011 Feb;134(Pt 2):518-33.

Skarica M, Eckstein C, Whartenby KA, Calabresi PA. Novel mechanisms of immune modulation of natalizumab in multiple sclerosis patients. *J Neuroimmunol.* 2011 Jun; 235(1-2):70-6.

Teener JW, Elsheikh BH, Bassam BA. Muscle cramps and hyperactivity syndromes neuromuscular vignette medley. *AANEM Neuromuscular Update.* 2010;55-60.

## II. PUBLISHED ABSTRACTS

Chun H, Maertens P, Drinkard R. Brain MRI in Roberts syndrome: a cohesinopathy. *J Neuroimaging.* 2011 Jan;21(1);97. Abstract no. 12.

Darbin O. Striatal GABA-A control on local and cortical activity in monkeys. *Japan Basal Ganglia Society*; 2011 Jul 4; Hakone, Japan. Abstract no. 26.1.

Dees D, Maertens P, Bullock C, Vidal R. Epilepsy in children Hashimoto encephalopathy. 64<sup>th</sup> American Epilepsy Society Meeting; 2010 Dec 3-7; Boston, MA. Abstract no. 3.113. Available from: <http://www.aesnet.org/publications/aes-abstracts/abstractsearch/abstract-search>

Duffy K, Maertens P. Epilepsy in Roberts SC phocomelia. 64<sup>th</sup> American Epilepsy Society Meeting; 2010 Dec 3-7; Boston, MA. Abstract no. 1.171. Available from:<http://www.aesnet.org/publications/aes-abstracts/abstractsearch/abstract-search>

Faulkner KK, Maertens P, Sosnowski J. Mitochondrial myopathy with inclusion bodies in a 3-month-old female infant. *Am J Clin Pathol.* 2010;134(Suppl):38-9. Abstract no. 124.

Foster E, Maertens P, Eason, H. Paroxysmal dyskinesia: a presenting symptom of aromatic L-amino acid decarboxylase (AADC) deficiency. *Southern Pediatric Neurology Society Meeting*; 2011 Mar 26; New Orleans, LA. p. 914.

Georgiadis AL, Cordina SM, Vazquez G, Tariq N, Suri MF, Lakshminarayan K, Adams HP Jr, Qureshi AI. Aspirin treatment failure increase the risk of recurrent stroke and/or death among patients with ischemic stroke. *J Stroke Cerebrovasc Dis.* 2011 Aug;9. Available from: [http://www.strokejournal.org/article/S1052-3057\(11\)00176-5/abstract](http://www.strokejournal.org/article/S1052-3057(11)00176-5/abstract)

Maertens P, Foster E. Aromatic L-amino acid decarboxylase (AADC) deficiency treatment with lioresal. *J Inherit Metab Dis.* 2011 Aug;34(Suppl 3):S130. Abstract no. P-152.

Maertens P, Huang C. Brain MRI in maternal phenylketonuria syndrome (MPKUS). *J Neuroimaging.* 2011 Jan;21(1);98. Abstract no. 15.

Overs S, Maertens P. Guillain-Barré syndrome after measles infection in Alabama. *J Child Neurol.* 2011 Jul;26(7):913-4.

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Varela-Espinosa GP, Maertens P, Weil A. Glutamic acid decarboxylase antibodies (GADAs) in epileptic children with Hashimoto encephalopathy. J Child Neurol. 2011 Jul; 26(7):917.

### III. PUBLISHED BOOKS

### IV. INVITED PRESENTATIONS

Bassam BA. Invited speaker. Nerve conduction pitfalls. The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) 32nd Annual Courses and Workshops; 2010 Oct 6; Quebec City, Quebec, Canada.

Bassam BA. Invited speaker. Neuromuscular vignettes medley. The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) 57th Annual Scientific Meeting; 2010 Oct 7; Quebec City, Quebec, Canada.

Bassam BA. Invited speaker. Repetitive motor nerve stimulation. The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) 32nd Annual Courses and Workshops; 2010 Oct 9; Quebec City, Quebec, Canada.

Bassam BA. Invited speaker. Diabetic neuropathy, update. Southern Clinical Neurological Society 38th Annual Meeting; 2011 Jan 19; Duck Key, FL.

Bassam BA. Invited speaker. Myotonic disorders, update. Southern Clinical Neurological Society 38th Annual Meeting; 2011 Jan 19; Duck Key, FL.

Bassam BA. Invited speaker. Electromyographic features of muscle hyperactivities. National Institute of Health (NIH) Neurophysiology Grand Rounds; 2011 Dec 1; Bethesda, MD.

Darbin O. Invited speaker. GABA functions in the striatum. National Institute for Physiological Sciences; 2011 May 26; Okasaki, Japan.

Maertens P. Invited speaker. Neurometabolism imaging jeopardy. American Society of Neuroimaging; 2011 Jan 22; Fort Myers, FL.

Maertens P. Invited speaker. Clinical neuroimaging jeopardy. American Society of Neuroimaging; 2011 Jan 23; Fort Myers, FL.

Naritoku D. Invited speaker. Advances in epilepsy. Wake Forest School of Medicine; 2011 Aug 4-7. Winton-Salem, NC.

Ochoa JG. Invited speaker. Seizing epilepsy in the impaired patient. 2010 Alabama Disability Conference. 2010 Oct 19; Perdido Beach, AL.

Ochoa JG. Invited speaker. SUDEP sudden unexplained death in epilepsy. Education and Awareness Program, Epilepsy Foundation Alabama; 2011 Jul 29; Mobile, AL.

## V. NATIONAL PROFESSIONAL RECOGNITION

Bassam A. Bassam: Neuromuscular update committee member, American Association of Neuromuscular and Electrodiagnostic Medicine; Committee member and national board examiner, American Board of Electrodiagnostic Medicine Examination; Member and Reviewer Network Subcommittee member, American Academy of Neurology Guidelines Reviewers; Ad Hoc Reviewer, *Muscle and Nerve Journal*, *Clinical Neuromuscular Journal* and *Headache Journal*; Grant reviewer panel member, FDA/Office of Orphan Products Development; Member at Large, Alabama Quality Assurance Foundation.

Christopher Eckstein: Principal Investigator, Sylvia Lawry Physician Fellowship; Member, American Academy of Neurology; Member, National Multiple Sclerosis Society.

Paul Maertens: Member, Editorial Board of the *Journal of Neuroimaging*; Member, Examination Committee of the Society of Neuroimaging; Member, ASN Program Committee; Member, American Society of Neuroimaging; Member, Membership committee, American Epilepsy Society; Secretary, Southern Pediatric Neurology Society.

Juan G Ochoa: Member, Editorial Board of the *Journal Pediatric Neurology*; Epilepsy section member, American Academy of Neurology.

Steve M. Cordina: Member, American Heart Association; Member, American Stroke Association; Junior member, American Academy of Neurology; Member, Neurocritical Care Society; Member, Medical Association of Malta.

Dean K. Naritoku: Scientific Committee, American Epilepsy Society; Task Force on Brain Stimulation, American Epilepsy Society; Board Member, American Board of Clinical Pharmacology; Board Member, J. Kiffin Penry Minifellowship Program; Member, American Academy of Neurology, American Epilepsy Society, American Society of Clinical Pharmacology and Therapeutics. *Best Doctors in America*® 2007-2012; Editorial Board Member, *Neurology Research*.

## VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The past year was a period of expansion and growth of the Department of Neurology, which resulted in expansion of subspecialty care, teaching and research.

Our successful faculty recruitment has allowed development of unique neurological services for the Gulf Region. Overall there has been a steady increase in tertiary referrals to the department for our unique services.

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A four bed epilepsy monitoring unit with state-of-art equipment was opened at the end of May, 2011 at the USA Medical Center. This service allows evaluation of patients with medically-intractable epilepsy. In the short time since opening, several successful epilepsy surgeries have been performed at the Medical Center, in collaboration with the Department of Neurosurgery.

The Department of Neurology has successfully recruited Dr. Steve Cordina, a neurologist trained in both vascular neurology and interventional neurology at the University of Minnesota. He has assumed the Directorship USA Stroke Center and is currently developing an interventional program that will allow intravascular retrieval of thrombi during acute stroke, treatment of intracerebral aneurysms and arterial-venous malformations. He is currently the first interventional neurologist in the central Gulf Region.

The department has also recruited Dr. Christopher Eckstein, who has been trained in Multiple Sclerosis and Neuroimmunology at the Johns Hopkins University. He has already developed a large referral base for patients with MS in the Gulf Region, and will be shortly opening an infusion center for these illnesses at the USA Medical Center.

The Neurology Clerkship has been refined, with the addition of education and evaluation with a formal clinical skills exam. The clerkship continues to be popular, with a significant number of students choosing to enter Neurology as a profession.

Research continues to be an important priority for the department. We continue to be a major center for two NIH-sponsored trials in stroke (SPS3 and IRIS). We completed two phase I studies for antiepileptic drugs. We have been steadily improving our research infrastructure, particularly in areas of dysautonomia, stroke and movement disorders. The publication of original, peer-reviewed articles by departmental faculty has notably increased over previous years.

Over the next year we anticipate large growth of our tertiary programs in epilepsy, multiple sclerosis and stroke, as well as general neurology. We have recruited a faculty member with expertise in movement disorders and deep brain stimulation, who we anticipate will begin in July, 2012. We anticipate moving to the KPG facility, which will improve our ability to service patients more modern facilities.