

1999-2000
SUMMARY OF SCHOLARLY ACTIVITIES
DEPARTMENT OF NEUROLOGY

I. ARTICLES PUBLISHED IN BOOKS AND JOURNALS.

A. Full-length published articles.

J. Boggs. New-Onset Seizures in Hypertensive Hemorrhagic Stroke. *Epilepsy* 3(1):6-8 (2000).

W. Clark, B. Williams, K. Selzer, R. Zweifler, L. Sabounjian, and R. Gammans. A Randomized Efficacy Trial of Citicoline in Acute Ischemic Stroke Patients. *Stroke* 30:2592-2597 (1999).

R. Kesler and P. Maertens. Comment: A Young Girl With "Spells" and Hallucinations (Narcolepsy). *Patient Care J.*, Vol. 33, p. 251 (1999).

P. Maertens. Sickle Cell Anemia. IN: Babikian (Ed.) *Transcranial Doppler Ultrasonography.* Butterworth-Heinemann, Boston, pp. 377-386 (1999).

A.B. Malapira and J. Mendizabal. Migraine. IN: Elmi Lussep (Ed.) *eMedicine Neurology Textbook.* [<http://www.eMedicine.com>] (2000).

J. Mendizabal. Droperidol Analgesia in Organic Headache. *Headache* 39(10):763-764 (1999).

J. Mendizabal. Cluster Headache. IN: Elmi Lussep (Ed.) *eMedicine Neurology Textbook.* [<http://www.eMedicine.com>] (2000).

K. Onuka, W. Nowack, M.V. Doran, and M.J. Niccolai. The Use of Haptic Information to Develop a Cognitive Map. IN: K. Akingbehin (Ed.) *Proceedings of the 18th International Association of Management.* Maxmillian Press. 18(3), Section 3, pp. 120-122 (2000).

J. Rothrock. Cutting-Edge Tools for Managing Migraine. *Hippocrates* 14:27-32 (2000).

J. Rothrock and J. Mendizabal. An Analysis of "Carry-Over Effect" Following Successful Short-Term Treatment of Transformed Migraine With Divalproex Sodium. *Headache* 40:17-19 (2000).

J. Rothrock. Management of Chronic Daily Headache Utilizing a Uniform Treatment Pathway. *Headache* 39:650-653 (1999).

J. Rothrock. The Woman With Acute Severe Headache. IN: A. Rapoport, F. Sheftell, R. Purdy (Eds.) Advanced Therapy of Headache. Decker, pp. 201-204 (1999).

B. Articles in press.

J. Boggs, E. Waterhouse, and R.H. Delorenzo. The Use of Antiepileptic Medications in Renal and Liver Disease. IN: Elaine Wyllie (Ed.) The Treatment of Epilepsy, Principles and Practice, 3rd Edition. Williams & Wilkins (2000).

J. Boggs. (1) Organ Transplantation and Seizures; and (2) Organ Failure and Seizures. N. Delanty (2000).

R. Kesler and B. Bassam. Ominous Sciatica, Case Report. Patient Care J., (2000).

J. Mendizabal, D. Lurie, F. Greiner, A. Shah, and R. Zweifler. Baseline CT Changes and Clinical Outcome After Thrombolysis With rt-PA in Acute Ischemic Stroke. J. Neuroimag. (2000).

J. Mendizabal. Invited Review. A Practical Approach to Migraine Headache. Compr. Ther. (2000).

J. Mendizabal, A. Shah, and R. Zweifler. Factors Influencing Outcome After Intravenous Thrombolysis With t-PA in Acute Ischemic Stroke. Ann. Neurol. (2000).

J. Rothrock. Migraine Treatment. IN: M. Aminoff and R. Daroff (Eds.) Encyclopedia of the Neurological Sciences (2000).

S. Walczak and W. Nowack. An Artificial Neural Network Approach to Diagnosing Epilepsy Using Lateralized Bursts of Theta EEGs. J. Med. Syst. (2000).

II. PUBLISHED ABSTRACTS.

J. Boggs, W. Nowack, and P. Maertens. Discontinuation of Antiepilepsy Drugs in the Adult Epilepsy Clinic. Epilepsia 40(7):96 (1999).

W. Nowack, A. Janati, and J. Boggs. Epileptic Seizures and Interictal Rhythmic Lateralized Bursts of Theta. Epilepsia 40(7):167 (1999).

P. Maertens. Lamotrigine-Induced Hypersensitivity Skin Rash in Children. *Epilepsia* 40, S7, pp. 119, Abstr. 2.140 (1999).

P. Maertens, R. Drinkard, W. Nowack, J. Painter, and J. Boggs. Weight Changes in an Adult Epilepsy Population. *Epilepsia* S7, pp, 228 (1999).

P. Maertens, F. Little, and R. Kesler. Transcranial Power-Based Duplex Sonography in Healthy Children With Sickle Cell Disease. *J. Neuroimag.*, 10, pp. 56, Abstr. 28 (2000).

P. Maertens. The Clinical and Genetic Spectrum of Krabbe Disease: A Review of Hunter's Hope Krabbe Disease Registry. *J. Child Neurol.* 14:457-458, Abstr. Poster 3 (1999).

P. Maertens. Familial Agenesis of the Corpus Callosum Without Extracranial Malformations. *J. Child Neurol.* 14:458, Abstr. Poster 5 (1999).

P. Maertens. Cerebral Neurocytoma in a Child With Versive Epileptic Seizures. *J. Child Neurol.* 14:462, Abstr. Paper 12 (1999).

P. Maertens. Brain Damage After Vaginal Birth Following Caesarian Section (VBAC) or Failed VBAC. *J. Child Neurol.* 14: 460, Abstr. Paper 6 (1999).

D. Lurie, J. Mendizabal, F. Greiner, and R. Zweifler. Do Early CT Changes Predict Clinical Outcome Following Administration of Intravenous r-tPA for Acute Ischemic Stroke? *Stroke* 31:276 (2000).

J. Mendizabal, A. Shah, and R. Zweifler. Factors Influencing Functional Outcome after Intravenous Thrombolysis With Tissue Plasminogen Activator in Acute Ischemic Stroke. *Ann. Neurol.* 48(3):500-501 (2000).

J. Mendizabal and D. Herbert. Migraine and the Risk of Ischemic Stroke: A Meta-analysis. *Headache* 40:241 (2000).

J. Rothrock. Does the Presence of Aura Predict Treatment Response to Divalproex Sodium. *Headache* 40:428 (2000).

R. Drinkard and J. Rothrock. Chronic Methadone Therapy for Refractory Pervasive Primary Headache. *Headache* 40:406 (2000).

A. Malapira and J. Rothrock. Incidence and Characteristics of Potential Analgesic Rebound Headache in a University-Based Headache Clinic Population. *Headache* 40:419 (2000).

R. Zweifler and D. Sessler. Mild Induced Hypothermia Following Ischemic Stroke in Awake, Unanesthetized Patients. *Neurology* 54 (Suppl. 3):A65 (2000).

A. Mahmood, R. Zweifler, J. Mendizabal, S. Cunningham, and J. Rothrock. A Community Based Analysis of In-hospital Stroke: The Mobile Stroke Project. *J. Stroke Cerebrovasc. Dis.* 9:204 (2000).

III. BOOKS PUBLISHED.

None.

IV. PRESENTATIONS.

B. Bassam. Nerve Conduction Study Pitfalls. Am. Assn. Electrodiag. Med. Sci. Annu. Mtg. Workshops, Vancouver, British Columbia, Canada (1999).

B. Bassam. Invited Speaker. The Floppy Infant Syndrome. Am. Univ. of Beirut, Beirut, Lebanon (2000).

J. Boggs. (1) AEDS: Mechanisms of Action; (2) Emerging AEDs; and (3) Acute Seizures and Status Epilepticus. J. Kiffin Penry Epilepsy Mini-fellowships, Winston-Salem, NC (1999).

W. Hamilton. Current Approaches to Diagnosis and Treatment of Headaches; Dementia Update. Mississippi Osteopathic Med. Assn., Sandestin, FL (2000).

P. Maertens. (1) Panel Discussion. Intracranial Neuroanatomy & Technique; Intracranial Hemorrhages; Brain Malformations and Genetics; and (2) Pediatric Brain Death. Am. Soc. Neuroimag. 23rd Annu. Mtg., San Juan, Puerto Rico (2000).

P. Maertens. (1) Hyperthermia, An Early Manifestation of Infantile Brancher Enzyme Deficiency (Andersen's Disease) and Acid Maltase Deficiency (Pompe's Disease); (2) Sagittal Sinus Thrombosis After Child Abuse; (3) Effect of Dopamine Therapy on Cerebral Blood Flow in Very Premature Neonates; and (4) Mild Hypothermia Prevents Status Epilepticus in Neonates With Ischemic-Hypoxic Encephalopathy. South. Pediatr. Neurol. Soc., 24th Annu. Mtg., Dallas, TX (2000).

J. Mendizabal. Invited Speaker. Treatment of Migraine: An Update. Internal Medicine Grand Rounds, Keesler U.S. Air Force Base, Biloxi, MS (2000).

J. Mendizabal. (1) Moderator. Prophylactic Medications Session; and (2) Migraine and the Risk of Ischemic Stroke: A Meta-analysis. Sci. Sess. 42nd Annu. Mtg. Am. Headache Soc., Montreal, Quebec, Canada (2000).

J. Mendizabal. (1) Invited International Speaker. An Update on the Treatment of Migraine; and (2) Invited International Speaker. Lunch Symposium: Chronic Daily Headache: Controversies and Management. 16th Cong., Guatemalan Neurol. Assn., Quetzaltenango, Guatemala (2000).

J. Rothrock. Migraine and Stroke. (1) Am. Headache Soc. Scottsdale Headache Symp., Scottsdale, AZ (1999); and (2) Mayo Clinic Headache Symp., Scottsdale, AZ (2000).

J. Rothrock. Migraine Treatment. Medical Grand Rounds, Baptist Hospital, Montgomery, AL (2000).

J. Rothrock. Migraine Prophylaxis. Tulane Migraine Management Update Symp., New Orleans, LA (2000).

J. Rothrock. Special Considerations in Patients With Migraine. Pre-Med West Satellite Symp.: Triptans for the New Millennium, Long Beach, CA (2000).

J. Rothrock. Pathophysiology of Migraine. Neurol. Ambassador Prog., Los Angeles, CA (2000).

J. Rothrock. Divalproex. NIH Consensus Conf.: 21st Century Prevention and Management of Migraine Headaches, Bethesda, MD (2000).

J. Rothrock. Chronic Methadone Therapy for Refractory Pervasive Primary Headache. Am. Headache Soc. 42nd Annu. Sci. Mtg., Montreal, Quebec, Canada (2000).

R. Zweifler. Critical Issues in Stroke Prevention and Management, Choosing an Antiplatelet & Moderator, Destin, FL, (2000).

R. Zweifler. Advances in Stroke Prevention. Grand Rounds. (1) Memorial Health University Medical Center, Savannah, GA; and (2) Mercer University College of Medicine, Macon, GA (2000).

R. Zweifler. Update on Stroke Prevention. Grand Rounds, St. Mary's Hospital, Enid, OK (2000).

R. Zweifler. Recent Advances in the Prevention of Ischemic Stroke. (1) Mobile Neurol. Soc., Mobile, AL; (2) Grand Rounds, VA Medical Center - Biloxi, MS; and (3) Tulsa, OK (2000).

R. Zweifler. Advances in Stroke Prevention. (1) North Baldwin Hospital, Bay Minette, AL; and (2) Jackson/Madison General Hospital, Jackson, TN (2000).

R. Zweifler. Antiplatelet Agents for Stroke Prevention. (1) 5th Annu. Stroke Belt Consortium Mtg., Orlando, FL; and (2) Louisville, KY (1999).

R. Zweifler. Advances in Stroke Prevention. Neurology/Internal Medicine Grand Rounds, University of Louisville College of Medicine, Louisville, KY (1999).

R. Zweifler. Advances in Stroke Prevention and Intervention. Medical Grand Rounds, Louis A. Weiss Memorial Hospital, Chicago, IL (1999).

R. Zweifler. Mild Induced Hypothermia Following Ischemic Stroke in Awake, Unanesthetized Patients. 52nd Annu. Mtg., Am. Acad. Neurol., San Diego, CA (2000).

R. Zweifler. (1) Vascular Dementia; and (2) Prophylaxis in Stroke Care. XVI Natl. Cong. Guatemalan Assn. Neurol., Quetzaltenango, Guatemala (2000).

R. Zweifler. A Community Based Analysis of In-hospital Stroke: The Mobile Stroke Project. North Am. Stroke Mtg., Toronto, Canada (2000).

V. NATIONAL PROFESSIONAL RECOGNITION.

Dr. B. A. Bassam served as a member of the American Association of Electrodiagnostic Medicine, Training Program Committee (1999-present), Liaison and Proctor for the AAEM annual examination (1994-present).

Dr. Paul Maertens is a member of the board of directors of the Mulherin Home for Children. In January 2000, he served as a member of the Neurosonology Examination Committee of the American Society of Neuroimaging in Puerto Rico. He is a member of the Editorial Board of the *Journal of Neuroimaging*.

Dr. Jorge Mendizabal was elected a member of the Editorial Board of Neurology Textbook Project as part of eMedicine. He continues to serve as a Fellow of the American Stroke Association Stroke Council.

Dr. John Rothrock serves on the board of directors of the American Headache Society and was program chairman for the Society's June 2000 annual scientific meeting in Montreal. He is a member of the Stroke Belt Consortium and an invited speaker at the Consortium's annual conference in Orlando. He is one of 32 physicians selected to participate in the Neurology Ambassadors Program, a national program intended to promote headache education, which is sponsored by the American Academy of Neurology. He serves as physician advisor to the Mobile chapter of the American Council for Headache Education (ACHE) and as an editor for *Neurology Network Commentary*.

Dr. Richard Zweifler. Editor, eMedicine Neurology, Stroke Task Force member, American Stroke Association Southeast Affiliate, Executive Committee, Alabama Stroke Education Consortium, Fellow, American Stroke Association Stroke Council, Member of the Member Reviewer Network, American Academy of Neurology

VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.

During this academic year, the Department of Neurology moved its primary office operations to the USA Knollwood campus. This transition, although costly, has led to a 10% increase in patients evaluated. There has been a significant increase in outside funding, primarily through pharmaceutical sources with research studies in stroke, headache, neuromuscular disease, epilepsy, and Alzheimer's disease funded. Drs. Bassam and Hamilton terminated a nerve growth factor study in neuropathy secondary to diabetes melitus. The results were disappointing. Dr. Jane Boggs, has launched several new studies regarding new pharmacological agents in the treatment of epilepsy. To compliment this research, she has developed a 24-hour inpatient epilepsy monitoring unit at USA-KP, which is fully booked in advance for a couple of weeks. Moreover, Drs. Boggs and Quindlen have 15 patients to receive a vagal nerve stimulator, for refractory epilepsy. This novel approach seems to have a niche in some refractory patients. Dr. Richard Zweifler, Director of the USA Stroke Center, has continued to maintain a prolific record in collaborative and independent clinical research. Dr. Zweifler has gained national recognition for his research in stroke, and has several ongoing therapies for acute stroke treatment and for stroke prevention. With Dr. Zweifler's assistance, Dr. Malapira has joined him as a sub-investigator. Dr. Malapira possesses unusual qualities, being fellowship trained in headache, stroke, and neurorehabilitation. Dr. Malapira has initiated a neurorehabilitative program at USA Knollwood in the Long Term Care Center. The USA Headache Center directed by Dr. Mendizabal, and in conjunction with Drs. Rothrock and Malapira, has established several new research programs for the evaluation of therapies for migraine and pervasive headaches. Dr. Rothrock is well-known nationally with regards to headache research, and has continued to provide collaboration both regionally and through national studies. Dr. Pappolla, who has a joint appointment in the Department of Pathology and in Neurology, will complete his neurology training as of September 30 of this year. Dr. Pappolla continues to receive NIH funding for basic research in the effects of antioxidants on the progression of Alzheimer's disease. It is anticipated, upon his completion of training, that he will establish a formal Memories Disorders Clinic in conjunction with Dr. Hamilton, and will offer special expertise not currently available in this region. Dr. Nowack has recently acquired outside funding for epilepsy research from two pharmaceutical companies. Dr. Maertens has also just entered the research arena in epilepsy; but, unfortunately, his major thrust in the Department of Neurology is to provide pediatric neurology coverage, which has been an overwhelming burden.

Dr. Boggs continues to be the Director of the Residency Training Program, organizing and providing didactic lectures, and the scores on the Neurology In-Service Examination reflects this expanding education exposure. Dr. Hamilton continues to be the

Director of the Medicine Student Training Program and has received praiseworthy comments with regards to this rotation. This rotation has become more diversified, including inpatient and outpatient clinical experience, and association with private practice neurologists. A major problem existing for the department, especially with regards to its neurology residency program, is having only one slot available at the PGY-1 level, whereas two positions are seriously needed. It is impossible to acquire PGY-2s, as most programs now offer ample PGY-1s; therefore, residents do not have to switch programs. As a result, we are going to experience a shortage of residents, which will unfortunately impact our resident program. Overall, the Neurology Department has grown, showing considerable diversification, and actively soliciting and receiving more funding.