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EVELYN F. McKNIGHT BRAIN INSTITUTE

January 14, 2011

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SunTrust Banks, Inc.
Foundations & Endowments Specialty Practice
200 S. Orange Ave., SOAB-10
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Dear Trustees,

Please find enclosed a copy of the Evelyn F. McKnight Brain Institute Progress Report for 2010. As you will see we have made substantial strides through increased collaborations at UM and outreach to the community.

There are many other exciting milestones explained in our report and we look forward to seeing you at our 4th Annual Symposium being hosted this year by us at the Miami Beach Hotel and Spa.

Wishing you a happy and healthy 2011. Should you have any questions please feel free to contact Dr. Sacco at 305-243-7519 or Dr. Wright at 305-243-1664.

Yours Sincerely,

Ralph L. Sacco, M.D., M.S.
Executive Director
Evelyn F. McKnight Brain Institute

Clinton B. Wright, M.D.
Scientific Director
Evelyn F. McKnight Brain Institute

RLS/CW/SFR/bd

cc: Marsha Kegley
Hank Raatama
Susan Fox Rosellini

1. Summary of Scientific Achievements since Last Report

Through an agreement between the MBRF and the Miller School of Medicine we are now designated as the Evelyn F. McKnight Brain Institute, hereinafter referred to as the Institute, and we have arranged for new signs to be built both outside the entrance of the Clinical Research Building and in its lobby. New signs for the 13th Floor are being planned as well, where a wall acknowledges the generous gift from the MBRF to the University with photographs of the trustees, the UM Team, and a portrait of Evelyn F. McKnight.

In 2010, the Institute has engaged in both scientific and public outreach. A major focus of our Institute is on modifiable vascular risk factors as precursors of vascular disease (stroke, MI, vascular death) and cognitive impairment. We have a number of publications and analyses from our Northern Manhattan cohort that address various modifiable risk factors, including the Mediterranean diet pattern, our Global Vascular Risk Score, physical activity, blood pressure and hypertension, insulin resistance, the metabolic syndrome, dyslipidemia, renal disease, adiponectin, infectious burden, and inflammatory markers. We also have investigations with a specific focus on subclinical vascular damage such as subclinical carotid disease, subclinical brain infarcts, white matter hyperintensities, and brain volumes. Another approach in our institute has been to expand our focus using genomic methods, as well as enhance translational investigations with further collaborations with our cerebrovascular and mitochondrial basic laboratory scientists.

Our Research Seminars have continued to allow investigators across the University to come together regularly and discuss topics related to aging and cognition. Our educational outreach has included involvement in the large Brain Fair at the Miami Science Museum in March 2010 that included separate programs designed by the Institute for children and adults (see Section 12 below). The Institute also sponsored the Memory Walk in Coral Gables to raise awareness about age-related cognitive problems. In addition, Dr. Isaacson ran an Educational Outreach Program on Potential Therapies for Cognitive Aging at the Jewish Home.

In 2010 we received IRB approval and initiated data collection for the Evelyn F. McKnight Brain Institute Clinical and Biorepository Registry to collect standardized demographic, cognitive, and brain imaging data on age-related cognitive changes to relate them to other cognitive disorders in patients presenting to our Memory Disorder Clinic. This registry will be a resource for investigators at UM to conduct research into aging and cognition. The database is built around the National Alzheimer Coordinating Center (NACC) Uniform Data Set (UDS) that is used by Centers nationwide to collect standardized data on normal cognitive aging as well as pathological conditions. Approval by the NACC for the Institute to use the UDS is a key step in gathering preliminary data in a format recognized by the NIH for Research Centers focused on age-related cognitive changes and related disorders.

In addition to the above, the Institute participated in the Cognitive Aging Summit II, the McKnight Brain Research Foundation Poster Session at the Society for Neuroscience, and the annual Inter-institutional Meeting that took place in Gainesville. Institute representatives presented data at important national and international meetings, including the American

Academy of Neurology, the International Stroke Conference of the American Heart Association, and the Society for Neuroscience.

Administrative Achievements

Dr. Wright and Dr. Sacco established a collaborative clinical program with the Department of Psychiatry and Behavioral Sciences that created a joint program to evaluate patients presenting with memory complaints to the medical center. As part of this, Dr. Wright became a co-director of the long-standing UM Memory Disorder Clinic and co-principal investigator of a grant from the Florida Department of Elder Affairs to fund its operation. This represents an important resource of research participants for studies of age-related cognitive changes sponsored by the Institute and is an important addition to the infrastructure.

2. Selected Publications by Institute Members, Collaborators & Trainees (Peer Reviewed)

Bacman SR, Williams SL, Garcia S, **Moraes CT**. Organ-specific shifts in mtDNA heteroplasmy following systemic delivery of a mitochondria-targeted restriction endonuclease. Gene Ther. 2010; 17:713-20.

Blanton SH, Burt A, Garcia E, Mulliken JB, Stal S, Hecht JT. Ethnic heterogeneity of IRF6 AP-2α binding site promoter SNP association with nonsyndromic cleft lip and palate. The Cleft Palate-Craniofacial Journal 2010.

Blanton SH, Nance WE, Norris VW, Welch KO, Burt A, Pandya A, Arnos KS. Fitness among individuals with early childhood deafness: studies in alumni families from Gallaudet University: Ann Hum Genet 2010; 74:27-33. PMCID: PMC2804774.

Boden-Albala B, Kargman DE, Lin IF, Paik MC, **Sacco RL**, Berglund L. Increased stroke risk and lipoprotein(a) in a multiethnic community: the Northern Manhattan Stroke Study. Cerebrovasc Dis. 2010; 30:237-43. PMID: 20664256.

Choi JH, Marshall RS, Neimark MA, Konstas AA, Lin E, Chiang YT, Mast H, **Rundek T**, Mohr JP, Pile-Spellman J. Selective Brain Cooling with Endovascular Intracarotid Infusion of Cold Saline: A Pilot Feasibility Study. AJNR Am J Neuroradiol. 2010; 31:928-34.

Chou KL, Amick M.M, Brandt J and others **Levin BE**. A recommended scale for cognitive screening in clinical trials of Parkinson¹s disease. Recommendations of a task force in behalf in the Parkinson Study Group Cognitive Behavioral Working Group, Movement Disorders (in press).

Christianson CA, Powell KP, Hahn SE, Bartz D, Roxbury T, **Blanton SH**, Vance JM, Pericak-Vance M, Telfair J, Henrich VC; Genomedical Connection. Findings from a community education needs assessment to facilitate the integration of genomic medicine into primary care. Genet Med. Sep 2010; 12:587-93.

Crocco EA, Castro, K, Loewenstein D. How late-life depression affects cognition: neural mechanisms. Current Psychiatric Reports. 2010; 12: 34-38.

Curtis KM, Gomez LA, Rios C, Garbayo E, **Raval AP**, **Perez-Pinzon MA**, Schiller PC. EF1α and RPL13a represent normalization genes suitable for RT-qPCR analysis of bone marrow derived mesenchymal stem cells. BMC Molecular Biology 2010, 17:11:61.

Czaja SJ, Sharit J, Hernandez MA, Nair SN, Loewenstein. Variability Among Older Adults In Internet Health Information–seeking Performance. Gerontechnology 2010; 9: 46-55.

Della-Morte D, Beecham A, Boden-Albala B, Slifer S, McClendon MS, **Rundek T**, **Blanton SH**, **Sacco RL**. Genetic linkage of serum homocysteine in Dominican families: The family study of stroke risk and carotid atherosclerosis. Stroke. 2010; 41:1356-62. PMCID: PMC2914470.

Della-Morte D, **Gardener H**, Denaro F, Boden-Albala B, Elkind MS, Paik MC, **Sacco RL**, **Rundek T**. Metabolic syndrome increases carotid artery stiffness: the Northern Manhattan Study. Int J Stroke 2010; 5:138-44.

Della-Morte D, **Raval AP**, **Dave KR**, Lin HW, **Perez-Pinzon MA**. Post-Ischemic Activation of Protein Kinase C Epsilon Protects the Hippocampus from Cerebral Ischemic Injury via Alterations in Cerebral Blood Flow. Neurosci Lett. 2010(in press).

Demarin V, Lovrencić-Huzjan A, Basić S, Basić-Kes V, Bielen I, Breitenfeld T, Brkljacić B, Cambi-Sapunar L, Jurjević A, Kadojić D, Krolo I, Lovricević I, Lusić I, Rados M, Rotim K, **Rundek T**, Schmidt S, Trkanjec Z, Vargek-Solter V, Vidjak V, Vuković V; Croatian Society for Neurovascular Disorders; Croatian Society of Neurology; Croatian Society of Ultrasound in Medicine and Biology; Croatian Society of Radiology; Croatian Society of Vascular Surgery; Croatian Society of Neurosurgery. Recommendations for the management of patients with carotid stenosis. Acta Clin Croat. 2010; 49:101-18.

Desvarieux M, Demmer RT, Jacobs DR Jr, **Rundek T**, Boden-Albala B, **Sacco RL**, Papapanou PN. Periodontal bacteria and hypertension: the oral infections and vascular disease epidemiology study (INVEST). J Hypertens. 2010; 28:1413-21.

Dhamoon MS, Moon YP, Paik MC, Boden-Albala B, **Rundek T**, **Sacco RL**, Elkind MS. Quality of life declines after first ischemic stroke. The Northern Manhattan Study. Neurology 2010; 23. PMID: 20574034.

Dodson KM, **Blanton SH**, Welch KO, Norris VW, Nzo RL, Wegelin JA, Marin RS, Nance WE, Pandya A, Arnos KS. Vestibular Dysfunction in DFNB1 Deafness. American Journal of Medical Genetics: Part A (in press).

Dong C, Beecham A, Slifer S, Wang L, McClendon MS, **Blanton SH, Rundek T, Sacco RL**. Genome-wide linkage and peak-wide association study of obesity-related quantitative traits in Caribbean Hispanics. Hum Genet 2010; [Epub ahead of print] PMID: 21104097.

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Elkind MS, Luna JM, Moon YP, Boden-Albala B, Liu KM, Spitalnik S, **Rundek T, Sacco RL**, Paik MC. Infectious burden and carotid plaque thickness: the northern Manhattan study. Stroke 2010; 41:e117-22. PubMed PMID: 20075350; PubMed Central PMCID: PMC2830875.

Elkind MS, Ramakrishnan P, Moon YP, Boden-Albala B, Liu KM, Spitalnik SL, **Rundek T, Sacco RL**, Paik MC. Infectious Burden and Risk of Stroke: The Northern Manhattan Study. Arch Neurol. 2010; 67:33-8. PMID: 19901154.

Fontanesi F, Clemente P, **Barrientos A.** Cox25 teams up with Mss51, Ssc1 and Cox14 to regulate mitochondrial cytochrome C oxidase subunit 1 expression and assembly in Saccharomyces cerevisiae. *J.* Biol. Chem. Nov 2010. [Epub ahead of print].

Fontanesi F, Soto IC, Horn D, **Barrientos A.** Mss51 and Ssc1 facilitate translational regulation of cytochrome *c* oxidase biogenesis. *Mol Cell Biol* 2010;30: 245-259.

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Gutierrez J, Sacco RL, Wright CB. Dolichoectasia: an evolving arterial disease. Nature Reviews Neurology Advanced online publication, 2010 doi:10.1038/nrneurol.2010.181.

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Hachinski V, Donnan GA, Gorelick PB, Hacke W, Cramer SC, Kaste M, Fisher M, Brainin M, Buchan AM, Lo EH, Skolnick BE, Furie KL, Hankey GJ, Kivipelto M, Morris J, Rothwell PM, **Sacco RL**, Smith SC Jr, Wang Y, Bryer A, Ford GA, Iadecola C, Martins SC, Saver J, Skvortsova V, Bayley M, Bednar MM, Duncan P, Enney L, Finklestein S, Jones TA, Kalra L, Kleim J, Nitkin R, Teasell R, Weiller C, Desai B, Goldberg MP, Heiss WD, Saarelma O, Schwamm LH, Shinohara Y, Trivedi B, Wahlgren N, Wong LK, Hakim A, Norrving B,

Prudhomme S, Bornstein NM, Davis SM, Goldstein LB, Leys D, Tuomilehto J. Stroke: working toward a prioritized world agenda. Stroke. 2010 Jun; 41(6):1084-99. Review. PubMed PMID: 20498453; Int J Stroke. 2010 Aug; 5:238-56. PubMed PMID: 20636706; Cerebrovasc Dis. 2010; 30:127-47. PubMed PMID: 20516682.

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Morris KM, Lin HW, Thompson J, **Perez-Pinzon MA**. Pathways for Ischemic Cytoprotection: Role of Sirtuins in Caloric Restriction, Resveratrol and Ischemic Preconditioning. J Cereb Blood Flow Metab. 2010 (in press).

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Ramos-Sepulveda A, Wohlgemuth W, **Gardener H**, Lorenzo D, Dib S, Wallace DM, Nolan B, Boden-Albala B, Elkind MS, **Sacco RL**, **Rundek T**. Snoring and insomnia are not associated with subclinical atherosclerosis in the Northern Manhattan Study. Int J Stroke. 2010;5:264-8.

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with and without type 2 diabetes mellitus. Metabolism. 2010; 59:1365-71. PMID: 20102776; PubMed Central PMCID: PMC2891205.

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Wenz T, Wang X, Marini M, **Moraes CT.** A metabolic shift induced by a PPAR panagonist markedly reduces the effects of pathogenic mitochondrial tRNA mutations. Journal of Cellular and Molecular Medicine (in press).

3. Publications (Other)

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4. Presentations at Scientific Meetings

Alperin N, **Bagci AM**, Lee SH, Eftimov L, Ertl-Wagner B. Comparison between Total CBF Values Measured by ASL and Phase Contrast over Increased Range of CBF Values. International Society for Magnetic Resonance in Medicine (ISMRM), Stockholm, Sweden. May, 2010.

Alperin N. Direct Visualization and Quantitation of CSF flow in Shunts. International Society for Magnetic Resonance in Medicine (ISMRM), Stockholm, Sweden. May, 2010.

Barrientos A. Translational regulation of mitochondrial cytochrome c oxidase biogenesis

Invited speaker at the CNR (Center for National Research) at Gif sur Ivette (Paris, France) December, 2010.

Beecham A, Della-Morte D, Di Tullio MR, Wang L, McClendon MS, Slifer S, **Rundek T**, **Sacco RL**, **Blanton SH**. A fine-mapping study for left ventricular mass on chromosome 12p11 identifies potential candidate genes. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

Chiquet BT, Swindell E, Henry R, DeVault L, Burt A, Mulliken JB, Stal S, Warman M, **Blanton SH**, Hecht JT. CRISPLD2 and Neural Crest Cell Migration. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010;1312.

Czaja SJ. Aging and Work: Issues and Implications in a Changing Landscape. Symposium Gerontological Society of America Annual Meeting. New Orleans, LA.Sunday, November 21, 2010.

Czaja SJ. Digital Inclusion for Seniors: Training, Internet Access, and Social Environment. Symposium Gerontological Society of America Annual Meeting. New Orleans, LA. Saturday, November 20, 2010.

Czaja SJ. Spanning the Digital Divide: Personal Health Records and Patient Portals for the Underserved. Symposium AMIA Annual 2010, Washington, DC. November, 2010.

Czaja SJ. The Use of the Internet to Support Family Caregivers of Older Adults. Healthcare Technology and Older Adults: Issues and Potential Solutions. International Society for Gerontechnology 7th World Conference. **Symposium.** Vancouver, Canada. May, 2010.

Dave KR, Pilleggi A, **Perez-Pinzon MA**, **Raval AP**. Recurrent hypoglycemia increases oxygen - Glucose deprivation induced damage in hippocampal organotypic slices. Society for neuroscience conference, held at San Diego, CA. November, 2010.

Dave KR, Pilleggi A, **Perez-Pinzon MA**, **Raval AP**. Recurrent hypoglycemia increases oxygen - Glucose deprivation induced damage in hippocampal organotypic slices. The McKnight brain research foundation reception and poster session, held at San Diego, CA. November, 2010.

Della Morte D, **Dong C**, McClendon MS, Beecham A, Wang L, **Blanton SH**, **Sacco RL**, **Rundek T**. Sirtuin and Mitochondrial Uncoupling Protein Polymorphisms in Subclinical Carotid Atherosclerosis. American Academy of Neurology (AAN) 62nd Annual Meeting, Toronto, Ontario, Canada. April 10-17, 2010.

Dong C, Beecham A, Cabral D, **Blanton SH**, **Sacco RL**, **Rundek T**. Genome-wide linkage and follow-up association analyses of carotid plaque in Caribbean Hispanics. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

Dong C, Beecham A, Slifer S, **Wright CB**, **Blanton SH**, **Rundek T**, **Sacco RL**. Linkage and association studies revealed a locus for obesity-related quantitative traits on chromosome 1q43 in Caribbean Hispanics. Poster presentation at the 19th Annual International Genetic Epidemiology Society (IGES), Boston, Massachusetts. October 10-12, 2010.

Ester AR, Richards S, Barnes D, Alvarez C, **Blanton SH**, Hecht JT. Further evidence for the important role of apoptosis in clubfoot. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

Fajardo M, **Isaacson RS**. Age-Related Memory Loss and Alzheimer's Disease: A Web-based Educational Intervention in Patient Waiting Rooms. Florida Society of Neurology Annual Meeting, 2010.

Gutierrez J, Carrasquillo J, **Wright CB**. Demographic, clinical and radiological characterization of patients with Dolichoectasia. Poster presentation, 5th Annual resident and fellow's research day, The Florida Society of Neurology Annual Meeting, Orlando, FL. 2010.

Hsu JJ, Glover GH. Accelerated three-dimensional z-shimming for FMRI, In: Proceedings of the 18th Scientific Meeting, International Society for Magnetic Resonance in Medicine, Stockholm, Sweden. May 17, 2010.

Hsu JJ, Glover GH, Zaharchuk G. General formulas for optimizing two-point saturation-recovery measurements, In: Proceedings of the 18th Scientific Meeting, International Society for Magnetic Resonance in Medicine, Stockholm, Sweden. May 17, 2010.

Islam HM, Blanco MB, Pattany PM., Kundu P, Myerson C, **Levin B**, **Katzen HL**, Severino D, Hallett M, **Nahab FB**. Characterizing brainstem functional connectivity in essential tremor. Presented at the Movement Disorders Society 14th International Congress of Parkinson's Disease and Movement Disorders, Buenos Aires, Argentina. June, 2010.

Kumar A, Duvvari MR, Shetty J, Murthy G, **Blanton SH**. Genetics of Isolated Microspherophakia: identification of a novel locus. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

Miller S, **Dong C**, **Isaacson RS**. Effectiveness of a web-based Essential Neurologic Exam video tutorial in combination with a didactic lecture vs. didactic lecture alone: A randomized trial. Florida Society of Neurology Annual Meeting, 2010.

Miller S, **Dong C**, **Isaacson RS**. Effectiveness of a web-based Essential Neurologic Exam video tutorial in combination with a didactic lecture vs. didactic lecture alone: A randomized trial. Neurology. 2010; 72 (suppl).

Myerson CE, **Katzen HL**, **Nahab FB**, **Levin BE**. Redefining the link between apathy and cognition in Parkinson's disease. Presented at the International Neuropsychological Society, 38th Annual Meeting, Acapulco, Mexico. February, 2010.

SaccoRL. AHA Vision: A New Strategic Plan. Neurology Update and Stroke Intensive 2010. Miami Beach, Florida, USA. February 20, 2010.

Sacco RL. Cerebrovascular Disease, Stroke Risk Factors. American Academy of Neurology 62nd Annual Meeting. Toronto, Ontario, Canada. April 11, 2010.

Sacco RL. Evidence-based Approaches to Secondary Stroke. Sixteenth Annual Brain Injury Symposium. Baptist Hospital. Miami Beach, Florida, USA. October 10, 2010.

Sacco RL. Future Stroke Prevention Trials with Novel Antithrombotic Drugs. 7th World Stroke Congress, Seoul, Korea. October 13, 2010.

Sacco RL. Genetic Contributors to Subclinical Brain Disease. McKnight Center for Age Related Memory Loss 3rd Annual Symposium. University of Miami, Miami, Florida, USA. February 3, 2010.

Sacco RL. Ideal Cerebrovascular Health: Reviewing Risk Factors for Stroke and Cerebrovascular Disease and the new American Heart Association Strategic Plan. New York City AHA Stroke Reception. New York City, New York, USA. May 12, 2010.

Sacco RL. Moderator: Major Cardiovascular Disease Outcomes: Priorities Today, Priorities Tomorrow for Research and Community Health. Jackson Heart Study 2010 Scientific Conference, Jackson, Mississippi, USA. September 23, 2010.

Sacco RL. Moderator: Stroke Risk and Prevention. 27th Princeton Conference on Cerebrovascular Disease. Boston, Massachusetts, USA. April 23, 2010.

Sacco RL. Neurology Update. Stroke Therapy. American Academy of Neurology 62nd Annual Meeting. Toronto, Ontario, Canada. April 11, 2010.

Sacco RL. Panel Discussant: Clinical Studies from Trial to Cohort: Moving from experimental observations to clinical trials. Third Annual Inter-Institutional Meeting of McKnight Brain Research Foundation Funded Institutions. Gainesville, Florida, USA. April 29, 2010.

Sacco RL. Risk and Predictors of Recurrent Stroke after TIA or Stroke. 7th World Stroke Congress, Seoul, Korea. October 13, 2010.

Sacco RL. Searching for New Approaches to Prevent Stroke. Department of Neurology Medical Grand Rounds. Cornell University. New York, New York, USA. March 31, 2010.

Sacco RL. Searching for New Approaches to Prevent Stroke. Department of Neurology Grand Rounds. Johns Hopkins Hospital. Baltimore, Maryland, USA. April 22, 2010.

Sacco RL. Stroke and Cardiovascular Disease Prevention: Insights from the Northern Manhattan Study. Science Seminar Series. Center for Disease Control. Atlanta, Georgia, USA. March 15, 2010.

Sacco RL. Translating Evidence into Practice: Reducing Death and Disability due to Stroke – In Perspective of Ideal Health and Prevention. American Heart Association/American Stroke Association Atrial Fibrillation Summit. Washington, DC, USA. June 12, 2010.

Sullivan LS, Bowne SJ, Ray JW, Cadena EL, **Blanton SH**, Daiger SP. A New Locus for Autosomal Dominant Retinitis Pigmentosa, RP50, Maps to Chromsome 2q24.1-q31.1. Association for Research in Vision and Ophthalmology (ARVO) 2010 Annual Meeting, Ft. Lauderdale, Florida. May 2-6, 2010.

Wang L, Di Tullio MR, Beecham A, Slifer S, **Rundek T**, Homma S, **Blanton SH**, **Sacco RL**. A comprehensive genetic study on left atrium size in Caribbean Hispanics identifies candidate genes in 17p10. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

Weymouth KS, **Blanton SH**, Burt A, Hecht JT. Muscle contraction genes play a role in isolated clubfoot. Texas Genetics Society 37th Annual Meeting, Houston, Texas. March 25-27, 2010.

Weymouth KS, **Blanton SH**, Dobbs MB, Gurnett CA, Mitchell LE, Hecht JT. Evaluation of muscle contraction genes role in isolated clubfoot. Poster presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

Wright CB. Global Vascular Risk as a Predictor of Cognitive Function. McKnight Center for Age Related Memory Loss 3rd Annual Symposium. University of Miami, Miami, Florida, USA. February 3, 2010.

Wright CB. Global Vascular Risk Correlates of Successful Aging: Lessons from an Urban US Multi-ethnic Community. Cognitive Aging Summit II. Washington D.C. October 3-5, 2010.

Wright CB. Clinical and Imaging Predictors of Cognitive Decline and Vascular Dementia. AMEVASC. Queretaro, Mexico. August 19-21, 2010.

Wright CB. Vascular risk factors, brain morphology, and the aging brain. Neuroscience Program. University of Miami, Miami, Florida, USA. May 5, 2010.

Wright CB. Brain Morphology and Successful Aging in a Population-based Sample. McKnight Brain Research Foundation Annual Inter-institutional Meeting. University of Florida, Gainesville, Florida, USA. April 28-30, 2010.

Zuchner S, Beecham GW, Naj AC, Kohli MA, Whitehead PL, Powell EH, **Blanton SH**, Seo D, Buxbaum JD, Wen R, Vance JM, Lam BL, Pericak-Vance M. Exome sequencing identifies novel gene for recessive Retinitis pigmentosa. Platform presentation at The American Society of Human Genetics (ASHG), 60th Annual Meeting, Washington, DC. November 2-6, 2010.

5. Presentations at Public (Non-Scientific) Meetings or Events

Alperin N. "Getting the Job Done By Going Back and Forth: From CSF Pulsation to Noninvasive Intracranial Pressure by MRI". August 26-27th, NASA, Houston, TX.

Blanton S. Florida Genetic Counselors Meeting, Miami, FL, April, 2010. "Newborn Screening and Deafness".

Czaja SJ. Aging and Technology. Health Care Technology and Place (HCTP) Interdisciplinary Workshop. Panel Speaker. Toronto, Canada. April, 2010.

Czaja SJ. Health Information Technology In Support of Caregivers. Panel Speaker. AARP Public Policy Institute, Washington, DC. November 10, 2010.

Czaja SJ. RCMAR Workshop. Ethnic/Racial Differences in Response to the REACH II Intervention. Workshop Conference. Gerontological Society of America Annual Meeting. New Orleans, LA. Friday, November 19, 2010.

Czaja SJ. The Role of Technology in Supporting the Health and Well-Being of Older Adults: Opportunities and Challenges. Invited Speaker. Orcatech Council Meeting. Oregon Health & Science University. August 19, 2010.

Isaacson R. 2nd Annual Brain and Spine Symposium, 2010 Sponsored by the Memorial Healthcare System, Hallandale Beach, FL Topic: "Recent Advances in the Management of Cognitive Disorders".

Isaacson RS. Grand Rounds, Department of Medicine, 2010, Cleveland Clinic, FL Topic: "Recent Advances in the Management of Cognitive Disorder".

Isaacson RS. Grand Rounds, University of Miami Miller School of Medicine, Dept of Neurology, 2010 Topic: "Measuring Educational Outcomes in Neurology".

Isaacson RS. Grand Rounds, University of Miami Miller School of Medicine, Dept of Neurology, 2010 Topic: "Recent Advances in the Management of Alzheimer's Disease".

Isaacson RS. Music Therapy for Memory Loss (Alzheimer's Association Long Island - Alzheimer's Disease and Related Dementias Education Conference and Expo on Thursday, Scheduled for March 10th, 2011).

Isaacson RS. Neurological Update Course 2010, University of Miami Miller School of Medicine Topic: "Recent Advances in the Management of Cognitive Disorders".

Isaacson RS. South Carolina Neurological Association Meeting, 2010 Topic: "Recent Advances in the Management of Cognitive Disorders".

Levin BE. Staying Sharp Brain Fair 2010. Miami Museum of Science. Miami, Florida, USA. March 20, 2010.

Sacco RL. Staying Sharp Brain Fair 2010. Miami Museum of Science. Miami, Florida, USA. March 20, 2010.

Wright CB. Staying Sharp Brain Fair 2010. Miami Museum of Science. Miami, Florida, USA. March 20, 2010.

6. Awards (other)

Dr. Ralph Sacco was selected as President, American Heart Association, National Board of Directors.

Dr. Richard Isaacson won Faculty Mentor of the Year, 2010 University of Miami Miller School of Medicine, Academic Societies.

Dr. Tatjana Rundek received an NIH grant, NINDS R01 NS 065114 (PI: Rundek) 07/01/10-06/3/15- Novel Factors for Unexplained Phenotypes of Subclinical Carotid Atherosclerosis.

Drs. Clinton Wright and Elizabeth Crocco became co-principal investigators of a Florida Department of Elder Affairs grant to fund the UM Memory Disorder Clinic.

7. Faculty

Faculty is divided between those receiving direct support from the Institute (Members) and those with whom the Institute is collaborating within the University of Miami (Collaborators).

Name	Center Role	Area of Expertise
Noam Alperin, Ph.D.	Member	Physics of MRI
Susan Blanton, Ph.D.	Member	Genetics
Chuanhui Dong, Ph.D.	Member	Biostatistics
Jung Jiin "Jason" Hsu, Ph.D.	Member	Physics of MRI
Richard S. Isaacson, M.D.	Education Director	Education, neurology, cognition
Heather L. Katzen, Ph.D.	Member	Neuropsychology
Bonnie E. Levin, Ph.D.	Schoninger Professor	Neuropsychology
Fattah B. Nahab, M.D.	Member	Movement, functional MRI
Tatjana Rundek, M.D., Ph.D.	Member	Epidemiology, neurology
Ralph L. Sacco, M.D., M.S.	Executive Director	Neurology, epidemiology
Clinton B. Wright, M.D.,M.S.	Scientific Director	Neurology, epidemiology, cognition

Name	Center Role	Area of Expertise
Antonio Barrientos, Ph.D.	Collaborator	Neuroscience
Elizabeth Crocco, M.D.	Collaborator	Psychiatry
Sara Czaja, Ph.D.	Collaborator	Aging, psychology, engineering
Kunjan R. Dave, Ph.D.	Collaborator	Neurobiology
Hannah Gardener, Ph.D.	Collaborator	Epidemiology
Carlos Moraes, Ph.D.	Collaborator	Neuroscience
Miguel Perez-Pinzon, Ph.D.	Collaborator	Neuroscience

8. Trainees

Name	Center Role	Area of Expertise
Ahmet Murat Bagci, Ph.D.	Post –doc trainee	Bio-engineering
Jose Gutierrez, M.D.	Resident	Neurology
Jessica Loring, Ph.D.	M.D. -Ph.D. student	Epidemiology
Katherine Nearing	Medical student	Neurology
Ami P. Raval, Ph.D.	Ph.D. researcher	Neuroscience
Nooshin N. Zadeh	Graduate student	Engineering

9. Clinical/Translational Programs

New Programs

As mentioned in the summary section, the Institute added important infrastructure in the creation of the collaborative Evelyn F. McKnight Brain Institute Clinical and Biorepository Registry. This database will provide Institute researchers with the access to participants as well as rich cognitive, imaging, and laboratory data on which to base ongoing and future research projects and grant applications.

Update on Existing Clinical Studies

Genome-wide association study of the Northern Manhattan Study (NOMAS) imaging sample initiated by Dr. Wright, Dr. Sacco, and Dr. Margaret Pericak-Vance of the John P. Hussman Institute for Human Genomics. The objective of this work is to examine genetic associations with neuropsychological and imaging biomarkers of cognitive aging in 1,300 participants from the NOMAS sample. We continue to focus on genes related to white matter damage and age-related memory loss.

Analysis of over 1,290 brain MRI scans from NOMAS continues. With the help of Institute Member Dr. Noam Alperin and post-doctoral fellow Ahmet Bagci, we have continued to develop techniques to examine the effect of regional brain volume and white matter changes on cognitive function as it relates to age-related changes in memory and other cognitive domains. Dr. Jason Hsu has helped us to refine methods for relating blood flow and brain metabolites to cognitive function fMRI.

Neuropsychological data continue to be collected as part of NOMAS. The cognitive assessment done by telephone annually has been collected since 2001 and provides a measure of cognitive decline. The more extensive neuropsychological test battery is now being collected for the second time and will allow a more sensitive evaluation of cognitive decline that will be domain specific.

Our basic research on mitochondrial function and aging continues under the direction of Drs. Moraes and Barrientos. Studies completed this year include targeting mitochondria with a systemic endonuclease to examine DNA changes, and further studies in yeast to understand cytochrome C oxidase biology and ways of using mitochondria to limit toxicity. This work holds the promise of identifying targets for intervention that are relevant to successful aging.

The cerebrovascular research group under the direction of Dr. Perez-Pinzon has continued to examine the role of ischemia on the brain using animal models. Studies focused on understanding the neurobiology underlying protection of the hippocampus from ischemic injury as well as neurons in general. The lab also examined the GABAergic neurotransmitter system after ischemia to the forebrain in a rodent model, showing degeneration in the substantia nigra, and has implications for understanding vascular damage in humans. There is potential for future translational work using resveratrol as a neuroprotectant in ischemic injury and a clinical study

of ischemic pre-conditioning was included as part of our Specialized Programs On Translational Research in Acute Stroke program project application to NINDS.

Dr. Czaja continued research as part of her program to understand the way older adults interact with technology and the cognitive abilities important for them to do so. Specific investigations centered on how older adults use the internet to seek health information as well as studies on problem-solving using government health care websites. The ability of older adults to use technology is directly correlated with their ability to remain independent as well as manage health information and health problems that in turn affect independence as well.

10. Technology Transfer

- Patents applications
  No Patents have been applied for or received

- Revenue generated from technology
  Not applicable

11. Budget update

- Status of matching funds (see attached).

- Existing budget (see attached).

- Projected budget for coming year (see attached).

- Extramural funding:

  - National Scientist Development Grant
    Source: American Heart Association (0735387N)
    Principal Investigator: Clinton Wright, MD MS
    2010 budget: $65,000

  - Independent Scientist Award
    Source NINDS (K02NS059729)
    Principal Investigator: Clinton Wright, MD MS
    2010 budget: $180,198

  - Stroke Incidence and Risk Factors in a Tri-ethnic Region
    Source: NIH, NINDS (NS 029993-18)
    Principal Investigator: Ralph Sacco MD MS
    2010 budget: $1,750, 070

- ❖ Genetic Determinants of Extreme Phenotypes of Subclinical Atherosclerosis
  Source: NIH, NINDS (K24 NS 062737)
  Principal Investigator: Tatjana Rundek
  2010 budget: $192, 804

12. Educational programs focusing on age related memory loss

Scientific:

Dr. Richard Isaacson completed data analysis for the study entitled: "Evaluating the Effectiveness of a Continuum Curriculum for Medical Students: A Randomized Trial" due to the paucity of research on how to best teach healthcare providers about cognitive aging and dementia. This trial results are to be published in the January 11 edition of Neurology.

Another educational project is in progress entitled "Age-Related Memory Loss and Alzheimer's Disease: A Web-based Educational Intervention in Patient Waiting Rooms". This project is entirely funded and supported by the Institute, and Dr. Isaacson has worked closely with 3rd year medical student Marytery Fajardo and other Institute staff. This project was accepted as a poster at the Florida Society of Neurology Annual Meeting, 2010. To view the current draft of the web-module, visit:
http://neurology.med.miami.edu/interactive/Learning_aboutMem/player.html

Evelyn F. McKnight Brain Institute Research Seminars

"Cognitive Biases in Depression and Aging: Processing of Facial Expressions of Emotion."
Jutta Joorman, PhD. Department of Psychology

"The neural mechanisms underlying Self-Agency"
Fatta Nahab, MD. Department of Neurology

"Vitamin D – Beyond the Bone"
Silvina Levis, MD. Division of Gerontology & Geriatric Medicine

Public:

Brain Fair 2010: Saturday March 20, 2010: 10 am – 4 pm, The Miami Science Museum, Space Gallery - This event was free to the public and was attended by several hundred attendees.

Staying Sharp is a project of the Dana Alliance for Brain Initiatives, focused on understanding how the brain works and maximizing brain function and health throughout life. The program includes a series of live public forums and Drs. Sacco, Levin, and Wright participated in a guided panel discussion and question and answer session with a live audience.

Dr. Isaacson manned the UM/McKnight Institute Brain Fair Booth on "How memory works", geared for children of all ages, using swimming caps to teach children (and parents) how the brain works by coloring the parts of the brain that are involved with memory, attention, and other functions. Dr. Isaacson also presented a lecture to the public on "Prevention of Memory Loss" to the parents who attended Brain Fair 2010.

Educational Outreach Program on Potential Therapies for Cognitive Aging

In the last year, Dr. Isaacson moderated a forum on aging at the Miami Jewish Home for the Aged in Miami, Florida. During his presentation, Dr. Isaacson spoke about cognitive aging and age-related memory loss. After the presentation, Dr. Isaacson answered questions from the audience and highlighted some of the ongoing research of his team and the Evelyn F. McKnight Center for Age Related Memory Loss at the University of Miami.

Driving & Dementia Forum

UM Memory Disorder Clinic staff led a discussion forum to explore the important topic of safe mobility for persons with dementia. Participants shared their experiences and identified challenges, opportunities and possible solutions. Sessions were given in English and Spanish.

Model Daycare/ADI Agency Training- Caring for the Person Workshop

UM MDC staff partnered with Easter Seals Miami-Dade Adult Day Services Program and training sessions in English and Spanish to staff from the Aging and Dementia Initiative.

Focus on Care giving

This was a four hour Caregiver Education workshop in English, conducted in collaboration with the Mount Sinai MDC and attended by caregivers and health care practitioners.

Telephone Support Group for Spanish-speaking Caregivers in the State of Florida

We continued our monthly tele-support group in Spanish as part of the UM MDC. The support group has been well received and has averaged between 7 and 9 family caregivers and 2-4 professional participants per month. This year we have had several guest speakers and some of the topics discussed were, "Medicaid Waivers & Community Programs for Memory Impaired Persons," "Culture-bound Myths and Beliefs about Hospice Services, "and "Activities for Memory Impaired Persons."

13. Collaborative Programs with other McKnight Institutes, Institutions, and Research programs

The Institute has continued to collaborate with Dr. Gene Alexander of the Evelyn F. McKnight Brain Institute at the University of Arizona. Drs. Wright and Alexander are studying the effects of blood pressure on brain anatomy using voxel-based morphometry to examine regional differences in brain volume.

14. Collaborative Programs with non-McKnight Institutes, Institutions, and Research programs

Our collaboration with Columbia University allows the Northern Manhattan Study (NOMAS) to continue to follow its stroke-free cohort for vascular events and deaths. In addition, the sub sample of 1,290 participants that underwent neuropsychological testing continues to come in for the second evaluation (see Section 9 – Update).

15. Briefly Describe Plans for Future Research and/or Clinical Initiatives

Dr. Wright is negotiating a subcontract with Wake Forest University for UM to be a site for the MRI substudy to the MIND component of the Systolic Pressure Intervention Trial, a large NIH/NHLBI funded clinical trial. The purpose of the trial is to examine the effect of intensive blood pressure lowering on cognitive decline and the MRI substudy will focus on brain volume, white matter lesions, and other brain changes associated with the blood pressure regimen.

Dr. Wright submitted an ancillary study to the Center on Research and Education for Aging and Technology Enhancement (CREATE). If funded, the study will examine the role of subclinical vascular damage on age-related cognitive changes. In particular, the CREATE study examines the way older adults interact with technology, as technology is increasingly important for older adults to remain independent and age successfully.

16. Endowment Investment Results

Please see attached report.

17. Were any funds used for a Prohibited Purpose during the report period?

No funds were used for prohibited purposes. See attached report.

18. Do you recommend any modification to the Gift Agreement?

We do not request any modifications to the Purpose of the Gift Agreement.

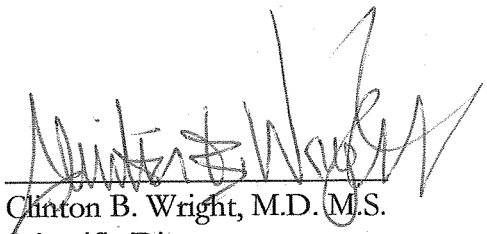
19. Did all activities during the report period further the Purpose?

Yes, all activities during the report period furthered the purpose of the Gift.

20. Please describe any negative events (loss of personnel, space, budget, etc.) that occurred during the report period and the possible impact on carrying out the Gift Agreement?

No negative events occurred to impact the ability of the Institute to carry out its Mission.

21. Signature, date, and title of person submitting the report



Clinton B. Wright, M.D. M.S.
Scientific Director

January 14, 2011

Market Value Analysis & Budget Summary
Evelyn F. McKnight Center for Age-Related Memory Loss
November 30, 2010

McKnight Contribution	$5,000,000	
UM Match	2,050,253	See appendix A
Transfers from Other University Funds	711,471	See appendix B
Investment Return	1,363,401	See appendix C
Distributions for Spending	(1,979,917)	See appendix D
11/30/09 Endowment Balance	$7,145,208	
Unmatched Balance	$2,949,477	
Book Value	$7,153,724	See appendix E
FY 2010 Balance at Year End	583,193	See appendix F
FY 2011 Balance at Year End	484,715	See appendix G

McKnight

UM Match- Appendix A

Description	Date	262080	262293	Total
Folke Peterson endowment	2/21/2008		1,150,913.25	1,150,913.25
Applebaum Foundation	9/9/2008	300,000.00		300,000.00
Bernard Schoeninger	9/26/2008	57,599.00		57,599.00
Bernard Schoeninger	9/30/2008	62,180.00		62,180.00
Wolfson transfer	12/31/2008	100,000.00		100,000.00
Bernard Schoeninger	11/23/2009	152,093.00		152,093.00
Bernard Schoeninger	11/30/2010	227,738.00		227,738.00
Cumulative total - UM Match		899,610.00	1,150,913.25	2,050,523.25

McKnight
Transfers from Other University Funds-Appendix B

Description	Date	262080
Transfer required - McKnight Foundation*	12/31/2008	352,800.00
Transfer required - McKnight Foundation*	8/4/2009	201,149.00
Cumulative total - Transfers		553,949.00

* The amount that would have been distributable per the UM Endowment Spending Policy on the Unmatched Balance or, if greater, the average actual rate of return earned by the Growth Pool for the 3 years ended the prior fiscal year and then added to the Endowment Balance.

Spending funded from other sources	8/1/2010	157,522.00
Cumulative total - Transfers for spending		157,522.00

McKnight

Investment Return - Appendix C

Fiscal Year Ended	262080 Realized	262080 Unrealized	262293 Realized	262293 Unrealized	Total Realized	Total Unrealized
May 31, 2004	110,702.00	114,675.00			110,702.00	114,675.00
May 31, 2005	182,453.00	-4,070.00			182,453.00	-4,070.00
May 31, 2006	252,873.00	195,763.00			252,873.00	195,763.00
May 31, 2007	312,401.00	669,788.00			312,401.00	669,788.00
May 31, 2008	369,508.92	-479,810.92	10,438.66	26,207.00	379,947.58	-453,603.92
May 31, 2009	-460,173.92	-1,132,552.92	-77,193.77	-221,048.24	-537,367.69	-1,353,601.16
May 31, 2010	291,169.52	527,978.81	46,860.54	85,753.70	338,030.06	613,732.51
5/31/2010- through 11/30/2010	287193.4	180525.44	45,413.60	28,546.30	332,607.00	209071.74
Cumulative total - Investment Return	1,346,126.92	72,296.41	25,519.03	-80,541.24	1,371,645.95	-8,244.83
Grand Total	1,418,423.33		-55,022.21		**1,363,401.12**	

McKnight
Distributions for Spending - Appendix D

Description	Date	262080	262293	Other Sources	Total
Distributable amount for previous fiscal years distributed in FYE 08-09:					
FYE May 31, 2005		111,111.53			111,111.53
FYE May 31, 2006		157,543.11			157,543.11
FYE May 31, 2007		211,927.00			211,927.00
FYE May 31, 2008		277,199.68			277,199.68
FYE May 31, 2009		314,691.84	55,567.69		370,259.53
FYE May 31, 2010		311,373.54	50,373.21		361,746.75
FYE May 31, 2011 (through 11/30/2010)		287,193.40	45,413.60	157522	332,607.00
Cumulative total - Spending Distr.		1,671,040.10	151,354.50	157,522.00	1,979,916.60

McKnight
Book Value Analysis - Appendix E

	Book/Realized			
	262080	262293	Other sources	Total
McKnight Contribution	$5,000,000			$5,000,000
UM Match	899,610	1,150,913		2,050,523
Transfers from Other University Funds	553,949		157,522	553,949
Investment Return	1,346,127	25,519		1,371,646
Distributions for Spending	(1,671,040)	(151,355)	(157,522)	(1,822,395)
11/30/09 Endowment Balance	$6,128,646	$1,025,078	$0	$7,153,724

*book not adjusted until fye.

McKnight
Budget for the period of June 1, 2010 - May 31, 2011 - Appendix F

				Budget	Actual at 11/30/2010	Projected at Yr End
Revenue						
Income				500,000.00	490,129.00	490,129.00
McKnight Project						
Clinical and Clinical Research Program						
Subtotal Faculty Salary				161,926.02	133,762.00	265,030.00
Faculty	***Role in Project***	***Effort***	***CFB Rate***			
Clinton Wright, MD	Scientific Director	5.00%	21.30%			
Ralph Sacco, MD	Executive Director	10.00%	21.30%			
Tanja Rundek, MD	Co-investigator	0.00%	27.60%			
Bonnie Levin, MD	Neuropsychology	35.00%	27.60%			
Heather Katzen	Neuropsychology	5.00%	27.60%			
Susan H. Blanton	Genetics	5.00%	27.60%			
Jason Hsu	Radiology	30.00%	27.60%			
Richard Isaacson	Educational Director	10.00%	21.30%			
Noam Alperin	Radiology	8.00%	27.60%			
Chuanhui Dong	Statistics	2.00%	26.80%			
Subtotal Staff Salary and CFB				74,423.81	57,777.00	94,795.00
Staff	***Role in Project***	***Effort***	***CFB Rate***			
Ahmet Bagci	Radiology	50%	39.30%			
Ashley Harris Beecham	Statistics	10%	39.30%			
Rodolfo Andrew Lewy	Neuropsychology	100%	39.30%			
Kenia Rodriguez	Neuropsychology	50%	39.30%			
Pedja Stevanic	Neuropsychology	50%	39.30%			
Jessica Loring	Educational	20%	39.30%			
Jessica Suarez	Administrative Support	10%	39.30%			
Khushnuma Unwalla	Administrative Support	10%	39.30%			
James West	Accounting	10%	39.30%			
Subtotal Salary						
Program Non Personnel Expenses						
Communcations				2,755	1,120.00	2,239.96
Consulting and Other Outside Services				-	42.00	1,000.00
Dues & Subscriptions				-	75.00	5,000.00
Internal UM Services Provided				-	1,996.00	4,000.00
Supplies				3,000	2,414.00	5,000.00
Travel				4,500	5,101.00	15,000.00
Other				29,683	3.00	5,000.00
Grand Total Expenses				276,287.37	202,290.00	397,064.96
Project Balance at Year End				**223,712.63**	**287,839.00**	**93,064.04**
Carryover balance from FY2010						490,129.00
Ending Balance						583,193.04

McKnight
Budget for the period of June 1, 2011 - May 31, 2012 - Appendix G

				Budget FY12
enue				
McKnight Project				
Clinical and Clinical Research Program				
Subtotal Faculty Salary				
Faculty	***Role in Project***	***Effort***	***CFB Rate***	275,154.91
Clinton Wright, MD	Scientific Director	30.00%	21.30%	
Ralph Sacco, MD	Executive Director	8.00%	21.30%	
Bonnie Levin, MD	Neuropsychology	30.00%	27.60%	
Fatta Nahab	Imaging	4.00%	21.30%	
Heather Katzen	Neuropsychology	5.00%	27.60%	
Susan H. Blanton	Genetics	5.00%	27.60%	
Jason Hsu	Radiology	10.00%	27.60%	
Richard Isaacson	Educational Director	8.00%	21.30%	
Noam Alperin	Radiology	5.00%	27.60%	
Richard Defazio	Basic Science	20.00%	27.60%	
Subtotal Staff Salary and CFB				312,571.58
Staff	***Role in Project***	***Effort***	***CFB Rate***	
Ahmet Bagci	Radiology	20%	39.30%	
Ashley Harris Beecham	Genetics	5%	39.30%	
TBA NeuroPsych Post Doc	Neuropsychology	100%	39.30%	
Pedja Stevanovic	Neuropsychology	35%	39.30%	
Khushnuma Unwalla	Administrative Support	10%	39.30%	
James West	Accounting	10%	39.30%	
MDC RA		100%	39.30%	
imal Core Tech		100%	39.30%	
A Imaging Post Doc	Imaging	100%	39.30%	
Subtotal Salary				
Program Non Personnel Expenses				
Communcations				1,120
Consulting and Other Outside Services				42
Dues & Subscriptions				75
Internal UM Services Provided				1,996
Supplies				2,414
Travel				5,101
Other				3
Grand Total Expenses				598,478.04
Project Balance at Year End				**(98,478.04)**
Carryover balance from FY 2011				583,193.04
Ending Balance				484,715.00

Faculty

Noam Alperin, Ph.D.

Susan Blanton, Ph.D.

Chuanhui Dong, Ph.D.

Jung Jiin "Jason" Hsu, Ph.D.

Richard S. Isaacson, M.D.

Heather L. Katzen, Ph.D.

Bonnie E. Levin, Ph.D.

Fattah B. Nahab, M.D.

Tatjana Rundek, M.D., Ph.D.

Ralph L. Sacco, M.D., M.S.

Clinton B. Wright, M.D., M.S.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Noam Alperin, PhD	Professor of Radiology
eRA COMMONS USER NAME (credential, e.g., agency login) nalperin	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Tel-Aviv University, Israel	B.Sc.	10/80	Physics
Hebrew University, Jerusalem		8/83	Medicine
University of Chicago, Chicago, IL	Ph.D.	8/92	Medical Physics
University of Chicago, Chicago, IL	Postdoctoral	10/94	MRI

A. Personal Statement

Not applicable.

B. Positions and Honors

POSITIONS AND EMPLOYMENT

1985-1987 Physicist, Elscint Medical Imaging, Inc.
1987-1988 Product Manager, Mennen Medical, Inc.
1989-1994 Research Associate, MRI Center, University of Chicago
1994-1995 MRI Application Scientist, SMIS Inc.
1995-2001 Assistant Professor, Departments of Radiology and Bioengineering, Uni. of Illinois, Chicago
2001-2009 Associate Professor, Departments of Radiology and Bioengineering, Uni. of Illinois, Chicago
2009- Professor, Department of Radiology and Biomedical engineering, Uni. of Miami

Other Experience and Professional Memberships

1990-2008 Member, American Association of Medical Physicists
1994- Member, American Society of Magnetic Resonance in Medicine
2004- Ad hoc member, reviewer for several NIH study sections

C. Selected Peer-reviewed Publications (Selected from 44 peer-reviewed publications)

Most relevant to the current application

1. **Alperin N**, Vikingstad EM, Gomez-Anson B, and Levin DN. Hemodynamically-independent analysis of CSF and brain motion observed with dynamic phase-contrast MRI. Magn Reson Med 1996; 35:741-754.
2. **Alperin N**, Lee SH, Loth F, Raksin P, Lichtor T. (2000). MR-Intracranial Pressure (ICP): A method for noninvasive measurement of intracranial pressure and elastance. Baboon and Human Study. *Radiology*, 217 (3); 877–885.
3. **Alperin N**, Lee SH. (2003). PUBS: Pulsatility based segmentation of lumens conducting nonsteady flow. Magnetic Resonance in Medicine, 49:934–944.
4. **Alperin N**, Sivaramakrishnan A, Lichtor T. Magnetic resonance imaging–based measurements of cerebrospinal fluid and blood flow as indicators of intracranial compliance in patients with Chiari malformation. J Neurosurg. 2005 Jul;103(1):46-52.
5. Tain and RW, **Alperin N.** (2009). Noninvasive Intracranial Compliance From MRI-Based Measurements of Transcranial Blood and CSF Flows: Indirect vs. Direct Approach. IEEE Trans Biomed Eng, 56(3):544-51.

6. Chiang W, Takoudis C, Lee HS, McNulty AW, Glick R, **Alperin N**. (2009). Relationship between Ventricular Morphology and Aqueductal CSF Flow in Healthy and Communicating Hydrocephalus. Investigative Radiology, 44(4):192-9.
7. Alperin N, Chiang W, Lin D, Lee SH, Sekula R. Combined morphology-hydrodynamic criterion for adult Chiari I malformation. Oral presentation at the European congress of Radiology, Vienna, Austria, March, 2010
8. **Alperin N**, Sekula R, Chiang W, Sklar E, Lichtor T, Lee SH. Assessing the Performance of a Combined Morphology-Hydrodynamics Criterion for Adult Chiari I Malformation. Oral presentation at the Radiology Society of North America, Chicago, IL, December 2010

Additional recent publications of importance to the field (in chronological order)

1. Roitberg B, Khan N, Tuccar E, Kompoliti K Chu Y, **Alperin N,** Kordower JH, Emborg ME. (2003). Chronic ischemia stroke model in cynomolgus monkeys: Behavioral, neuroimaging and anatomical study. Neurol Res, 25(1):68-78.
2. Raksin P**, Alperin** N, Surapaneni S, Lichtor T. (2003). Noninvasive Intracranial Compliance and Pressure from Dynamic MR Imaging of Blood and CSF Flows: Review of Principles, Implementation, and Other Noninvasive Approaches. Neurosurg. Focus, 14 (4); 1:8.
3. Sivaramakrishnan A, **Alperin N,** Surapaneni S, Lichtor T. (2004). Evaluating the Effect of Decompression Surgery on CSF Flow and Intracranial Compliance in Patients with Chiari Malformation Using MRI Flow Studies. Neurosurgery, 55(6):1344-50; discussion 1350-1.
4. Ford MD, **Alperin N**, Lee SH, Holdsworth DW, Steinman DA. (2005) Characterization of volumetric flow rate waveforms in the normal internal carotid and vertebral arteries. Physiological Measurements, 26(4):477-88.
5. Lichtor T, Egofske P, **Alperin N**. (2005). Noncommunicating cysts and cerebrospinal fluid flow dynamics in a patient with a Chiari I malformation and syringomyelia. Spine, 15;30(12):1466-72
6. **Alperin N**, Sivaramakrishnan A, Lichtor T. (2005). Magnetic resonance imaging–based measurements of cerebrospinal fluid and blood flow as indicators of intracranial compliance in patients with Chiari malformation. Journal of Neurosurgery, 103(1):46-52.
7. Glick RP, Niebruegge J, Lee SH, Egibor O, Lichtor T, **Alperin N**. (2006). Early experience from the application of a noninvasive MRI-Based measurement of Intracranial Pressure in Hydrocephalus. Neurosurgery, 59:1052-1061
8. Sood S, Eklund A, **Alperin** N, Hydrocephalus, Tools for diagnosis and treatment of, In: **Encyclopedia of Medical Devices and Instrumentations** 2ed edition, J Webster, ed., A John Wiley & Sons, Publications. Vol. 4:1-18, 2006
9. Ha S, Kuehn DP, Cohen M, **Alperin N**. (2007). Magnetic resonance imaging of the levator veli palatini muscle in speakers with repaired cleft palate. Cleft Palate Craniofac J, 44(5):494-505.
10. Tain RW, Ertl-Wagner B, **Alperin N**. (2009). Influence of the compliance of the neck arteries and veins on the measurement of intracranial volume change by phase-contrast MRI. Journal of Magnetic Resonance Imaging, 30(4):878-83.
11. Wåhlin a, Ambarki K, Birgander R, **Alperin N**, Malm J, Eklund A. Assessment of Craniospinal Pressure-Volume Indices . American Journal of Neuroradiology, 31(9):1645-50, 2010

D. Research Support

Ongoing Research Support

R01 NS052122 Alperin (PI) 08/01/07-07/31/11
Development and Early Clinical Evaluation of Noninvasive MRI Measurement of ICP

The goal of the study is to implement an MRI-based measurement of intracranial compliance and pressure (MR-ICP) in the clinical setup of Arnold Chiari Malformations and evaluate the role of intracranial compliance in the pathophysiology of this relatively common but poorly understood neurological problem.
Role: PI

Completed Research Support

R41 NS46185 Alperin (PI) 05/28/05-04/30/08
Noninvasive ICP: Reduction to practice
This proposal aims to make the MR-ICP method more widely available for use in Radiology by developing a user friendly software tool for MRI technologists.
Role: PI

R21 RR14242 Alperin (PI) 08/01/99-7/31/01
Non-Invasive Measurements of Intracranial Pressure
The goal of the project was to test the feasibility of an MRI-based method for intracranial pressure measurement using a non-human primate model and a flow phantom.
Role: PI

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Blanton, Susan Halloran.	Associate Professor
eRA COMMONS USER NAME (credential, e.g., agency login) Shblanton	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Virginia Commonwealth University, Richmond VA	B.S.	1980	Biology
Virginia Commonwealth University, Richmond VA	Ph.D.	1985	Human Genetics
University of Pittsburgh, Pennsylvania	(Post-Doc)	1986	Biostatistics
Fox Chase Cancer Center, Philadelphia PA	(Post-Doc)	1988	Population Oncology

A. Positions and Honors

Positions and Employment

1980-1983	Graduate Asst, Dept of Human Genetics, VCU, Richmond
1983-1985	Graduate Asst, Div of Human Genetics, Univ of Maryland at Baltimore
1985-1986	Research Assoc, Dept of Biostatistics, U of Pittsburgh, Pittsburgh, PA
1987-1988	Postdoc, Population Oncology, Fox Chase Cancer Ctr, Philadelphia PA
1988-1989	Instructor, Dept of Pediatrics, U of Conn Health Center, Farmington
1989-1991	Asst Professor-Research, Medical Genetics Center, U of TX, Houston
1991-1996	Asst Professor of Research, Dept of Pediatrics, UVA, Charlottesville
1996-2006	Assoc Professor of Research, Dept of Pediatrics, UVA, Charolottesville
1997-present	Assoc Professor, Collateral Faculty, Dept of Human Genetics, VCU, Richmond, VA
2006	Assoc Research Professor, Center for Human Genetics, Duke, Durham, NC
2007-present	Assoc Professor, Dr. John T. Macdonald Foundation Department of Human Genetics, University of Miami Leonard M. Miller School of Medicine, Miami, Florida

Other Experience and Professional Memberships

1990-1995	Member, Tuberous Sclerosis Advisory Board
1995-1998	Research Proposal Reviewer, MD Anderson Cancer Center
1995-2000	Research Proposal Reviewer, Wellcome Trust, England
1997	Ad Hoc, NIDDK NIH study section
2001-2003	Ad Hoc, NINDS NIH study section NSD-C
2002/2005	Research Proposal Reviewer, Alzheimer's Association
2003-2005	Member, NINDS NIH study section NSD-C
2005/2006	Special emphasis panel, NINDS
2005-2007	Ad Hoc, NINDS study section NST
2007-2011	Member, NINDS study section NST
2008-present	Editor, Journal of Biomedicine and Biotechnology

Honors

1980	Phi Kappa Phi, Virginia Commonwealth University
1980	Biology Award to Oustanding Senior, Virginia Commonwealth University, Dept. of Biology
1980-1983	NIH Pre-Doctoral Fellowship, Medical College of Virginia
1982	Alpha Sigma Chi, Virginia Commonwealth University
1983-present	Sigma Zi
1994	IBM Shared University Resource Award

B. Selected Peer-reviewed Publications (Selected from 123 peer-reviewed publications)

1. **Blanton SH**, Nance WE, Norris VW, Welch KO, Burt A, Pandya A, Arnos KS. Fitness among individuals with early childhood deafness: studies in alumni families from Gallaudet University: Ann Hum Genet. 2010 Jan;74(1):27-33. PMCID: PMC2804774 [Available on 2011/1/1].
2. Hahn S, Letvak S, Powell K, Christianson C, Wallace D, Speer M, Lietz P, **Blanton S**, Vance J, Pericak-Vance M, Henrich V. A Community's Awareness and Perceptions of Genomic Medicine. Public Health Genomics. 13(2):63-71, Jan 2010.
3. **Blanton SH**, Burt A, Stal S, Mulliken J, Garcia E, Hecht JT. Family-based study shows heterogeneity of susceptibility locus on chromosome 8q24 for nonsyndromic cleft lip and palate. Birth Defects Research Part A: Birth Defects Res A Clin Mol Teratol. 2010 Apr;88(4):256-259. PMCID: PMC2861347.
4. Nalls MA, Biffi A, Matarin M, et al. International Stroke Genetics Consortium; Welcome Trust Case-Control Consortium 2. Failure to validate association between 12p13 variants and ischemic stroke. N Engl J Med. 2010 Apr 22; 362(16):1547-50.
5. Sirmaci A, Erbek S, Price J, Huang M, Duman D, Cengiz FB, Bademci G, Tokgoz-Yilmaz S, Hismi B, Ozdag H, Öztürk B, Kulaksizoglu S, Yildirim E, Kokotas H, Grigoriadou M, Petersen MB, Shahin H, Kanaan M, King MC, Chen ZY, **Blanton SH**, Liu XZ, Zuchner S, Akar N, Tekin M. A Truncating Mutation in SERPINB6 is Associated with Autosomal Recessive Non-Syndromic Sensorineural Hearing Loss. Am J Hum Genet. 2010 May 14;86(5):797-804. PMCID: PMC2869020.
6. Della-Morte D, Beecham A, Boden-Albala B, Slifer S, McClendon MS, Rundek T, **Blanton SH**, Sacco RL. Genetic linkage of serum homocysteine in Dominican families: the family study of stroke risk and carotid atherosclerosis. Stroke. 2010 Jul;41(7):1356-62. PMCID: PMC2914470 [Available on 2011/7/1].
7. Wang L, Di Tullio MR, Beecham A, Slifer S, Rundek T, Homma S, **Blanton SH**, Sacco RL. A Comprehensive Genetic Study on Left Atrium Size in Caribbean Hispanics Identifies Potential Candidate Genes in 17p10. Circ Cardiovasc Genet. 2010 Aug;3(4):386-92. PMCID: PMC2923674.
8. Christianson CA, Powell KP, Hahn SE, Bartz D, Roxbury T, **Blanton SH**, Vance JM, Pericak-Vance M, Telfair J, Henrich VC; Genomedical Connection. Findings from a community education needs assessment to facilitate the integration of genomic medicine into primary care. Genet Med. 2010 Sep;12(9):587-93.
9. Kumar A, Maheswara RD, Prabhakaran VC, Shetty JS, Murthy GJ, **Blanton SH**. A homozygous mutation in LTBP2 causes isolated microspherophakia. Hum Genet. 2010 Oct;128(4):365-71.
10. Dong C, Beecham A, Slifer S, Wang L, **Blanton SH**, Wright CB, Rundek T, Sacco RL. Genomewide Linkage and Peakwide Association Analyses of Carotid Plaque in Caribbean Hispanics. Stroke. 2010 Oct 21. [Epub ahead of print].
11. **Blanton SH,** Burt A, Garcia E, Mulliken JB, Stal S, Hecht JT.. Ethnic Heterogeneity of IRF6 AP-2a Binding Site Promoter SNP Association With Nonsyndromic Cleft Lip and Palate. Cleft Palate Craniofac J. 2010 Nov;47(6):574-7.
12. Chiquet BT, Henry R, Burt A, Mulliken JB, Stal S, **Blanton SH**, Hecht JT. Nonsyndromic cleft lip and palate: CRISPLD Genes and the Folate Gene Pathway Connection. Birth Defects Res A Clin Mol Teratol. 2010 Nov 15. [Epub ahead of print].
13. Dong C, Beecham A, Slifer S, Wang L, McClendon MS, **Blanton SH**, Rundek T, Sacco RL. Genome-wide linkage and peak-wide association study of obesity-related quantitative traits in Caribbean Hispanics. Hum Genet. 2010 Nov 21. [Epub ahead of print].
14. Sommer A, **Blanton SH,** Weymouth K, Alvarez C, Richards BS, Barnes D, Hecht JT.. Smoking, the xenobiotic pathway and clubfoot. Birth Defects Res A Clin Mol Teratol. 2010 Dec 1. [Epub ahead of print].
15. **Blanton SH,** Henry RR, Yuan Q, Mulliken JB, Stal S, Finnell RH, Hecht JT.. Folate pathway and nonsyndromic cleft lip and palate. Birth Defects Res A Clin Mol Teratol. 2010 Dec 1. [Epub ahead of print].

In Press:

16. Gardner H, Beecham A, Cabral D, Yanuck D, Slifer S, Wang L, **Blanton S**, Sacco RL, Juo, SHH, Rundek T. Carotid plaque and candidate genes related to inflammation and endothelia function in Hispanics from northern Manhattan. Stroke. IN PRESS, November 2010.
17. Dodson KM, **Blanton SH**, Welch KO, Norris VW, Nuzzo RL, Wegelin JA, Marin RS, Nance WE, Pandya A, Arnos KS. Vestibular Dysfunction in DFNB1 Deafness. American Journal of Medical Genetics: Part A. IN PRESS, November 2010.
18. Wang L, Yanuck D, Beecham A, Gardener H, Slifer S, **Blanton S**, Sacco R, Rundek T. Candidate gene study revealed sex specific association between OLR1 gene and carotid plaque. Stroke. IN PRESS, November 2010.

Books and Monographs Published:

19. Yuan Q, **Blanton SH,** Hecht JT. Genetic causes of nonsyndromic cleft lip with or without cleft palate, In: Advances in Oto-Rhino-Laryngology - Medical Genetics in the Clinical Practice of ORL, 2010.

Peer-reviewed abstracts:

1. Weymouth KS, **Blanton SH**, Burt A, Hecht JT. Muscle contraction genes play a role in isolated clubfoot. Texas Genetics Society 37th Annual Meeting, Houston, Texas, March 25-27, 2010.

2. Della Morte D, Dong C, McClendon MS, Beecham A, Wang L, **Blanton SH**, Sacco RL, Rundek T. Sirtuin and Mitochondrial Uncoupling Protein Polymorphisms in Subclinical Carotid Atherosclerosis. American Academy of Neurology (AAN) 62nd Annual Meeting, Toronto, Ontario, Canada, April 10-17, 2010.
3. Sullivan LS, Bowne SJ, Ray JW, Cadena EL, **Blanton SH**, Daiger SP. A New Locus for Autosomal Dominant Retinitis Pigmentosa, RP50, Maps to Chromsome 2q24.1-q31.1. Association for Research in Vision and Ophthalmology (ARVO) 2010 Annual Meeting, Ft. Lauderdale, Florida, May 2-6, 2010.
4. Dong C, Beecham A, Slifer S, Wright CB, **Blanton SH**, Rundek T, Sacco RL. Linkage and association studies revealed a locus for obesity-related quantitative traits on chromosome 1q43 in Caribbean Hispanics. Poster presentation at the 19th Annual International Genetic Epidemiology Society, Boston, Massachusetts, October 10-12, 2010.
5. Weymouth, KS, **Blanton, SH**, Dobbs, MB, Gurnett, CA, Mitchell, LE, Hecht, JT. Evaluation of muscle contraction genes role in isolated clubfoot. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #966.
6. Ester, AR, Richards, S, Barnes, D, Alvarez, C, **Blanton, SH**, Hecht, JT. Further evidence for the important role of apoptosis in clubfoot. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #952.
7. Zuchner S, Beecham GW, Naj AC, Kohli MA, Whitehead PL, Powell EH, **Blanton SH**, Seo D, Buxbaum JD, Wen R, Vance JM, Lam BL, Pericak-Vance M. Exome sequencing identifies novel gene for recessive Retinitis pigmentosa. Platform presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #320.
8. Wang L, Di Tullio MR, Beecham A, Slifer S, Rundek T. Homma S, **Blanton SH**, Sacco RL. A comprehensive genetic study on left atrium size in Caribbean Hispanics identifies candidate genes in 17p10. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #691.
9. Dong C, Beecham A, Cabral D, **Blanton SH**, Sacco RL, Rundek T. Genome-wide linkage and follow-up association analyses of carotid plaque in Caribbean Hispanics. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #702.
10. Kumar A, Duvvari MR, Shetty J, Murthy G, **Blanton SH.** Genetics of Isolated Microspherophakia: identification of a novel locus. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #2183.
11. Beecham A, Della-Morte D, Di Tullio MR, Wang L, McClendon MS, slifer S, Rundek T, Sacco RL, **Blanton SH**. A fine-mapping study for left ventricular mass on chromosome 12p11 identifies potential candidate genes. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #697.
12. Chiquet BT, Swindell E, Henry R, DeVault L, Burt A, Mulliken JB, Stal S, Warman M, **Blanton SH**, Hecht JT. CRISPLD2 and Neural Crest Cell Migration. Poster presentation at The American Society of Human Genetics, 60th Annual Meeting, Washington, DC, November 2-6, 2010 #1312.

C. Research Support

Ongoing Research Support

5R01DE011931-10 (Hecht) PI – University of Texas 04/01/99-03/31/12
3R01DE011931-10S1 (Hecht) PI – University of Texas 09/22/09-08/31/11
NIH
"Mapping nonsyndromic cleft lip and palate genetic loci"
To map the genes for non-syndromic cleft lip/palate
Role: PI on Subcontract

5R01HD043342-05 (Hecht) PI – University of Texas 09/29/06-07/31/11
5R01HD043342-04 (Hecht) PI – University of Texas (Admin Supp) 08/01/09-07/31/10
NIH-NICHHD
"Genetic Studies of Clubfoot" (ITEV)
"Genetic Studies of Clubfoot Administrative Support" (ITEV)
To map the genes for clubfoot
Role: PI on Subcontract

2R01EY007142-12A2 (Daiger) - UTHSC 09/01/09–08/31/10
NIH-NEI
"DNA Linkage Studies of Degenerative Retinal Diseases""
The purpose of this grant is to identify the genes and mutations causing autosomal dominate retinitis pigmentosa.
Role: PI on subcontract

No number (Hecht) – UTHSC 01/01/07-12/31/10
Shriner'S Hospital for Crippled Children
Gene Studies in Idiopathic Talipes Equinovarus (ITEV) (Clubfoot)"
The purpose of this grant is to evaluate the role of genes in candidate pathways in the development of club foot.
Role: Consultant

5R01HD051804-05 (Werler) 08/01/06-05/31/11

NIH-NICHHD
"Maternal Vasoactive Exposures and Rise of Clubfoot"
The purpose of this grant is to confirm previously reported linkages in clubfoot.
Role: PI on subcontract
7R01NS040807-06 (Sacco, Ralph) 10/01/09-09/30/11
NINDS
"Family Study of Stroke Risk and Carotid Atherosclerosis"
The purpose of this grant is to identify QTLs for stroke risk factors.
Role: Co-investigator
5R01NS047655-06 (Rundek) PI – University of Miami 04/01/08-03/31/13
"Genetic Determinants of Subclinical Carotid Disease"
The main goal of this research is to study the genetic polymorphisms associated with carotid IMT and distensibility in the three race/ethnic groups (whites, blacks and Hispanics) from the Northern Manhattan Study (NOMAS) cohort.
Role: Co-Investigator
1U54NS0657-12-01 (Shy, ME) 08/01/09-07/31/14
NIH/RDCRC/WSU
"Inherited Neuropathies Consortium - Project 2: Inherited neuropathies; an integrated approach leading to therapy".
The proposed CMT consortium will deliver high quality clinical data and collect a large number of CMT families/patients;. apply innovative study designs using the latest technology to tackle some of the most pressing genetic issues in CMT that will ultimately pave the way for new therapeutic approaches.
Role: Senior Statistical Geneticist and Epidemiologist
2 T15 HG000026-16 (Scott, WK) 03/01/10–11/30/14
NIH/NHGRI
"Genetic Analysis Methods for Medical Researchers"
In order to successfully move into the next phase of disease gene mapping, and thus attain one of the primary goals of the Human Genome Initiative, it is critical that physician scientists and laboratory scientists be educated with respect to pedigree ascertainment, sampling and basic gene localization experimental design along with the understanding of the plethora of analytic tools available.
Role: Co-course organizer.
1 R01 DC009645-01A2 (Tekin, M) 07/01/10–06/30/15
NIH
"A Collaborative Search for New Genes for Non-Syndromic Deafness"
The purpose of this grant is to identify new genes for deafness in inbred families from Turkey.
Role: Co-investigator
1R01NS065114-01 (Tatjana Rundek, Susan Blanton) 07/01/10-06/30/15
NIH-NINDS
"Novel factors for unexplained extreme phenotypes of subclinical atherosclerosis"
The purpose of this grant is to identify genes associated with extreme phenotypes of subclinical atherosclerosis.
Role: Co-Principal Investigator

Completed Research Support (last three years)

7R01NS040807-06 (Ralph Sacco) 05/01/02-04/30/09
NINDS
"Family Study of Stroke Risk and Carotid Atherosclerosis"
The purpose of this grant is to idenfiy QTLs for stroke risk factors.
Role: Co-investigator
W81XWH-05-1-0383 (Pericak-Vance) PI – University of Miami 04/15/05-04/14/09
Department of Defense/Moses Cone Health System
"Guilford Genomic Medicine Initiative: Developing Models for Medical Practice"
The purpose of the Guilford County Genomic Medicine Initiative (GGMI) is to identify the specific challenges in "reengineering" an existing medical system to be genomic medicine ready, and to create solutions that can be used as the basis for other medical systems such as the extensive military medical care system.
Role: Project Director
5R01DC006707-05 (Arnos) PI – Gallaudet University 04/14/04-02/28/09
NIDCD
"Genetic Deafness in the Alumni of Gallaudet University"
Identifying genes for deafness in the alumni of Gallaudet University
Role: PI on Subcontract
5R01DC005831-04 (Pandya) PI - VCU 09/01/03-08/31/08
NIDCD
"Potential Societal Impact of Advances in Genetic Deafness"
Study the attitudes and concerns of deaf adults and hearing parents of deaf children towards issues related to genetic testing and technological advances in management of the deaf.
Role: Significant Contributor

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Dong, Chuanhui	Research Assistant Professor
eRA COMMONS USER NAME (credential, e.g., agency login) CHDONG07	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Tongji Medical University, Wuhan, China	M.D.	07/84	Preventive Medicine
Hubei Medical University, Wuhan, China	M.A.	06/89	Epidemiology
Shanghai Medical University, Shanghai, China	Ph.D.	07/98	Epidemiology
Karolinska Institute, Stockholm, Sweden	Post-Doc	12/00	Cancer Epidemiology
University of Pennsylvania, Philadelphia	Post-Doc	10/03	Statistical Genetics

A. Positions and Honors

Positions and Employment

1984-1986 Teaching Assistant, Dept. of Epidemiology, Hubei Medical University, Wuhan, China
1989-1995 Instructor, Clinical Epidemiology, Dept. of Epidemiology, Hubei Medical University, Wuhan, China
1998-2000 Research Fellow, Biostatistician, Dept. of Biosciences, Karolinska Institute, Stockholm, Sweden
2001-2003 Postdoctoral Researcher, Statistical Genetics, Dept. of Psychiatry, University of Pennsylvania, PA
2003-2006 Research Associate, Statistical Genetics, Dept. of Psychiatry, University of Pennsylvania, PA
2006-2007 Research Biostatistician, Clinical Research, American College of Radiology, PA
2007- Research Assistant Professor and Biostatistician, Dept. of Psychiatry & Behavioral Sci., University of Miami, FL
2009- Research Assistant Professor and Biostatistician, Dept. of Neurology, University of Miami, FL

Other Experience and Professional Memberships

2008- Member, American Statistical Association
2008- Member, International Genetic Epidemiology Society
2002- Member, American Association of Human Genetics
2002-2006 Member, International Epidemiological Association
2002-2006 Member, American Association for Cancer Research
2006-2007 Statistical Design and Analysis Committee for QRRO, American College of Radiology

B. Selected Peer-reviewed Publications (Selected from over 40 peer-reviewed publications in international Journals and 25 in national journals)

1. **Dong C.** and Hemminki K. (2001). Modification of cancer risks in offspring by sibling and parental cancers from 2112616 nuclear families. Int J Cancer, 92(1):144-150.
2. **Dong C.** and Hemminki K. (2001). Second primary neoplasms among 53,159 hematolympholiferative malignancy patients in Sweden, 1958-1996: a search for common mechanisms. Br J Cancer, 2001; 85(7): 997-1005. PMCID: PMC2375099
3. **Dong C.,** Wang S., Li W.D., Zhao H., Price R.A. (2003). Interacting genetic loci in chromosome regions 20q and 10q influence extreme human obesity. Am J of Hum Genet, 72(1): 115-124. PMCID: PMC378615

4. **Dong C.,** Sanchez L.E., Price R.A. (2004). Relationship of obesity to depression: a family-based study. Int J of Obesity, 28(6): 790-795.

5. **Dong C.,** Li W.D., Li D., Zhao H., Price R.A. (2005). Interaction between obesity-susceptibility loci in chromosome regions 2p25-p24 and 13q13-q21. Eur J of Hum Genet, 13(1): 102-108.

6. **Dong C.,** Li W.D., Geller F., Lei L., Li D., Gorlova O.Y., Hebebrand J., Amos C.I., Nicholls R.D., Price R.A. (2005). Possible Genomic Imprinting of Three Human Obesity-Related Genetic Loci. Am J Hum Genet, 76(3): 427-437. PMCID: PMC1196395

7. **Dong C.,** Li W.D., Li D., Price R.A. (2006) Extreme obesity is associated with attempted suicides: results from a family study. Int J of Obesity, 30(2): 388-390.

8. Wong M.L., **Dong C.,** Maestre-Mesa J., Licinio J. (2008). Polymorphisms in inflammation-related genes are associated with susceptibility to major depression and antidepressant response. Mol Psychiatry, 13(8):800-812. PMCID: PMC2650233

9. Wong M.L., **Dong C.,** Esposito K., Thakur S., Liu W., Elashoff R.M., Licinio J. (2008) Elevated stress-hemoconcentration in major depression is normalized by antidepressant treatment: relevance to cardiovascular disease risk. PLoS One, 3(7): e2350. PMCID: PMC2391294

10. Paz-Filho, G., Esposito, K., Hurwitz, B.E., Sharma, A., **Dong, C.,** Andreev, V.P., Delibasi, T., Erol, H., Ayala, A., Wong, M.L., Licinio, J., Changes in insulin sensitivity during leptin replacement therapy in leptin-deficient patients. Am J Physiol Endocrinol Metab 295: E1401-E1408, 2008. PMCID: PMC2652497

11. Licinio J., **Dong C.,** Wong M.L. (2009). Novel sequence variations in the brain-derived neurotrophic factor gene and association with major depression and antidepressant treatment response. Arch Gen Psychiatry, 66(5):488-497. PMID: 19414708

12. **Dong C.,** Wong M.L., Licinio J. (2009). Sequence variations of ABCB1, SLC6A2, SLC6A3, SLC6A4, CREB1, CRHR1 and NTRK2: association with major depression and antidepressant response in Mexican-Americans. Mol Psychiatry, 14(12):1105-1118. PMCID: PMC2834349

13. Luo H.R., Wu G.S., **Dong C.,** Arcos-Burgos M., Ribeiro L., Licinio J., Wong M.L. (2009). PDE11A global haplotype: Association with major depression and antidepressant response. Neuropsychiatric Disease and Treatment. Neuropsychiatric Disease and Treatment, 5:163–170. PMCID: PMC2695232

14. Wu, G.S., Luo, H.R., **Dong, C.,** Licinio, J., Wong, M.L. (2010) Sequence polymorphisms of MC1R gene and their association with depression and antidepressant response. *Psychiatric Genetics.* Nov 3. [Epub ahead of print], 2010

15. **Dong, C.,** Beecham, A., Slifer, S., Wang, L., Blanton, S., Wright, C.B., Rundek, T., Sacco, R.L. (2010) Genome-wide linkage and peak-wide association analyses of carotid plaque in Caribbean Hispanics. *Stroke.* 41(12):2750-2756

16. **Dong, C.,** Beecham, A., Slifer, S., McClendon, M.S., Wang, L., Blanton, S.H., Rundek, T., Sacco, R.L. (2010) Linkage and association of obesity related-quantitative traits with genes on chromosome 1q43 in Caribbean Hispanics. *Human Genetics,* Nov 21. [Epub ahead of print]

Abstract

1. **Dong, C.,** Wong, M.L., Licinio, J., Association of variations in inflammation-related genes with susceptibility to major depression and antidepressant effect of desipramine and fluoxetine. *Genetic Epidemiology* 32(7):686 (Abstract# 61), 2008. The 17th International Genetic Epidemiology Society Annual Meeting, September, 15-16, 2008, St. Louis, Missouri

2. **Dong, C.,** Wong, M.L. and Licinio, J., Time of Residence in U.S. and Prevalence of Obesity, Nicotine Dependence, Alcohol and Drug Use Disorders among Hispanic Americans. Seventh Annual International Conference: Drug Use & Adaptation to Rapidly Changing Environments, September 26-28, 2007, Miami, Florida

3. **Dong, C.**, Wong, and M.L., Licinio, J., Patterns of population differentiation between Mexican-Americans and three HapMap ethnic populations in candidate genes for depressive disorder and antidepressant response. The 58th American Society of Human Genetics Annual Meeting, Nov. 11-15, 2008, Philadlphia, Pennsylvania

4. **Dong, C.**, Wong, M.L., Licinio, J., Genome-wide association analysis reveals that PTPRD (Protein Tyrosine Phosphatase Receptor Type Delta) is associated with smoking in non-drinkers. *Genetic Epidemiology* 33(8):792 (Abstract# 139), 2009. The 18th International Genetic Epidemiology Society Annual Meeting, Oct. 18-20, 2009, Honolulu, Hawaii

5. **Dong, C.**, Beecham, A., Blanton, S., Slifer, S., Rundek, T., and Sacco, R.L., Genome-wide linkage scan for metabolic syndrome related quantitative traits in Dominican families. The 59th American Society of Human Genetics Annual Meeting, Oct. 20-24, 2009, Honolulu, Hawaii.

6. **Dong, C.,** Yoshita, M., DeCarli, C., Gervasi-Frankilin, P., Rundek, T., Elkind, M., Sacco, R.L., and Wright, C.B., Sex difference in the relationship between waist-hip ratio and silent brain infarction in a multiethnic cohort from the Northern Manhattan study (NOMAS). Oral presentation, World Hypertension Congress, Oct. 29-Nov.1, 2009, Beijing, China

7. Loring, J., **Dong, C.,** Mora-McLaughlin, C., Rundek, T., Elkind, M.S.V., Sacco, R.L., DeCarli, C., Wright, C.B., Education Moderates the Association of Leukoaraiosis With Cognitive Decline: The Northern Manhattan Study. (Oral Abstract 43 presented at the AHA/ASA International Stroke Conference 2010, February 24-, 2010, San Antonio.

8. Wright, C.B., **Dong, C.,** Guzman, J., Elkind, M.S.V., Rundek, T., DeCarli, C., Sacco, R.L., The Northern Manhattan Study Global Vascular Risk Score Is Associated with Leukoaraiosis. Abstract (P06.009) presented at the 62nd Annual Meeting of the American Academy of Neurology, April 10-17, 2010, Toronto.

9. Loring, J., **Dong, C.,** Disla, N., Rundek, T., Elkind, M.S.V., Sacco, R.L., Stern, Y., Wright, C.B. The Northern Manhattan Study Global Vascular Risk Score Is Associated With Cognitive Performance. Abstract (P04.094) presented at the 62nd Annual Meeting of the American Academy of Neurology, April 10-17, 2010, Toronto.

10. Della-Morte, D., **Dong, C.,** McClendon, S.M., Beecham, A., Wang, W., Blanton, S., Sacco, R.L., and Rundek, T. Mitochondrial Uncoupling Protein Polymorphisms in Subclinical Carotid Atherosclerosis. Abstract (IN1-2.004) presented at the 62nd Annual Meeting of the American Academy of Neurology, April 10-17, 2010, Toronto.

11. Antonio Arauz, A., Romano, J., Marquez, J.M., Artigas, C., Koch, S., Rundek, T., **Dong, C.,** Haussen, D., Katsnelson, M., Wright, C.B., Sacco, R.L., Disparities in Stroke Type and Vascular Risk Factors Between Two Hispanics Populations in Miami and Mexico City. Oral Abstract (S02.004) presented at the 62nd Annual Meeting of the American Academy of Neurology, April 10-17, 2010, Toronto.

12. Waldrop-Valverde, D., **Dong, C.,** Gonzalez, P., Ownby, R.L., Self-efficacy for Medication-taking among HIV+ Substance Users. Poster presented at the 5th International Conference on HIV Treatment Adherence, May 23-25, 2010, Miami, Florida.

13. Miller, S., **Dong, C.,** Isaacson, R. Effectiveness of a Web-Based Essential Neurologic Exam Video Tutorial in Combination with a Didactic Lecture vs. Didactic Lecture Alone: A Randomized Trial. Abstract (P01.002) presented at the 62nd Annual Meeting of the American Academy of Neurology, April 10-17, 2010, Toronto.

14. Ramos, A., **Dong, C.,** Cespedes, S., Wohlgemuth, W., Boden-Albala, B., Elkind, M.S.V., Wright, C.B., Sacco, R.L., Rundek, T. Race-Ethnic Variation of Sleep Symptoms in an Urban Multi-Ethnic Cohort: The Northern Manhattan Study. Abstract (P03.274) presented at the 62nd Annual Meeting of the American Academy of Neurology, April 10-17, 2010, Toronto.

15. **Dong, C.,** Beecham, Cabral, D., Blanton, S.H., Sacco, R.L., and Rundek, T., Genome-wide linkage and follow-up association analyses of carotid plaque in Caribbean Hispanics. Poster presented at the 60th American Society of Human Genetics Annual Meeting, Nov. 2-6, 2010, Washington, DC.
16. Markert, M.S., Cabral, D., Santiago, M., Gardener, H., **Dong, C.,** Wright, C.B., Elkind, M.S.V., Sacco, R.L., and Rundek, T., Ethnic differences in carotid artery stiffness in the elderly: The Northern Manhattan Study. Poster presented at the 135th American Neurological Association Annual Meeting, Sep. 12-15, 2010, San Francisco, California.

C. Research Support

Ongoing Research Support

R01NS065114 Tatjana Rundek (PI) 07/10-06/15
Novel factors for unexplained phenotypes of subclinical carotid atherosclerosis
To identify genetic variants influencing unexplained phenotypes of subclinical carotid atherosclerosis.
Role: Biostatistician

R37 NS 029993 Ralph Sacco (PI) 02/03-03/13
Stroke Incidence and Risk Factors in a Tri-Ethnic Region
To determine the effects of risk factors for stroke, MI, and vascular death in a prospective cohort study of 3 race-ethnic groups from Northern Manhattan.
Role: Biostatistician

1K02NS059729-01A1 Clinton Wright (PI) 09/08-08/13
Vascular Risk and Cognition in a Multi-ethnic Cohort
To examine vascular risk factors for cognitive dysfunction in a stroke-free multi-ethnic sample.
Role: Biostatistician

2R01NS040807 Ralph Sacco (PI) 09/09-08/11
Family study of stroke risk and carotid atherosclerosis
To investigate genes influencing carotid atherosclerosis through linkage and association studies.
Role: Biostatistician

R21MH084814 Drenna G Waldrop-Valverde (PI) 05/09-04/11
Health literacy, cognitive and social determinants of HIV appointment attendance
Role: Biostatistician

Completed Research Support (within the last three years):
5R01DA018066 Drenna G Waldrop-Valverde (PI) 08/05-07/10
HIV+Drug Users: Neurocognitive Aspects of ARV Adherence
To identify contributors to poor treatment adherence in HIV+Drug Users.
Role: Biostatistician

R01DK063240 Ma-Li Wong (PI) 09/02-08/10
Depression/Metabolic Syndrome in Mexican-American Women
To test insulin resistance and hyperglycemic trends parallel plasma cortisol levels in major depressive disorder.
Role: Biostatistician

K24RR017365 Ma-Li Wong (PI) 07/03-05/10
Pharmacogenetics of Antidepressant Drugs
To identify genetic variants associated with antidepressant response.
Role: Biostatistician

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Hsu, Jung-Jiin (Jason)	Research Assistant Professor
eRA COMMONS USER NAME (credential, e.g., agency login) SCIQEI	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Tung-hai University, Taichung, Taiwan	B.S.	1988	Physics
National Taiwan University, Taipei, Taiwan	M.S.	1991	Physics
University of Pittsburgh, Pittsburgh, Pennsylvania	Ph.D.	2002	Physics
Stanford University, California	Postdoctoral	2007	Medical Imaging

A. Personal Statement

Not applicable.

B. Positions and Honors

Positions and Employment

1995-1998 Teaching Fellow, Dept. of Physics and Astronomy, University of Pittsburgh
1998-2002 Graduate Student Researcher, Dept. of Physics and Astronomy, University of Pittsburgh
2000-2002 Consultant, NMR-on-a-Chip Project, Carnegie Mellon University
2002-2007 Postdoctoral Research Fellow, Lucas Center for Imaging, Stanford University
2007-2008 Research Associate, Lucas Center for Imaging, Stanford University
2009- Research Assistant Professor, Dept. of Radiology, University of Miami School of Medicine

Professional Memberships

1997-2008 Member, American Association for the Advancement of Science (AAAS)
1998- Member, Society of Magnetic Resonance in Medicine (ISMRM)

Honors

1988 Physics Student Representative, the Class of 1988, Tunghai University
2001 Outstanding Poster Presentation, Faculty of Arts and Sciences Grad Expo 2001, University of Pittsburgh

C. Selected Peer-reviewed Publications (4 peer-reviewed, first-authored publications in physics and 20 peer-reviewed conference abstracts excluded.)

Most relevant to the current application

1. **J.-J. Hsu** and G. H. Glover, *Mitigation of susceptibility-induced signal loss in neuroimaging using localized shim coils*, Magnetic Resonance in Medicine **53**, 243–248 (2005). DOI:10.1002/mrm.20365
2. **J.-J. Hsu** and G. H. Glover, *Rapid MRI method for mapping the longitudinal relaxation time*, Journal of Magnetic Resonance **181**, 98–106 (2006). DOI:10.1016/j.jmr.2006.03.014
3. **J.-J. Hsu**, G. Zaharchuk, and G. H. Glover, *Rapid methods for concurrent measurement of the RF-pulse flip angle and the longitudinal relaxation time*, Magnetic Resonance in Medicine **61**, 1319–1325 (2009). DOI:10.1002/mrm.21900

4. **J.-J. Hsu**, G. H. Glover and G. Zaharchuk, *Optimizing saturation–recovery measurements of the longitudinal relaxation rate under time constraints*, Magnetic Resonance in Medicine **62**, 1202–1210 (2009). DOI:10.1002/mrm.22111

Additional recent publications of importance to the field (in chronological order)

5. **J.-J. Hsu** and I. J. Lowe, *Signal recovery in free induction decay imaging using a stimulated spin echo*, Magnetic Resonance in Medicine **48**, 409–414 (2002). DOI:10.1002/mrm.10057
6. **J.-J. Hsu** and I. J. Lowe, *Spin-lattice relaxation and a fast T_1-map acquisition method in MRI with transient-state magnetization*, Journal of Magnetic Resonance **169**, 270–278 (2004). DOI:10.1016/j.jmr.2004.05.001
7. H. Yun, M. E. Patton, J. H. Garrett, Jr., G. K. Fedder, K. M. Frederick, **J.-J. Hsu**, I. J. Lowe, I. J. Oppenheim, and P. J. Sides, *Detection of free chloride in concrete by NMR*, Cement and Concrete Research **34**, 379–390 (2004). DOI:10.1016/j.cemconres.2003.08.020
8. **J.-J. Hsu** and I. J. Lowe, *Encoding to the longitudinal magnetization for MR imaging and flow velocity mapping*, Journal of Magnetic Resonance **183**, 41–49 (2006). DOI:10.1016/j.jmr.2006.07.016
9. J. Hamilton, G. Glover, **J.-J. Hsu**, I. Gotlib, *Modulation of subgenual anterior cingulate cortex activity with real-time neurofeedback*, Human Brain Mapping, in press (2009).

D. Research Support

N/A.

NIH BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Isaacson, Richard Scott	Associate Professor of Clinical Neurology University of Miami – Miller School of Medicine

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Missouri–Kansas City Kansas City, MO	B.A.	1995-1997	Liberal Arts
University of Missouri–Kansas City School of Medicine Kansas City, MO	M.D.	1997-2001	Medicine
Mount Sinai Medical Center, University of Miami	Internship	2001-2002	Internal Medicine
Beth Israel Deaconess Med Ctr, Harvard Med School	Residency	2002-2005	Neurology

A. Personal Statement

Not applicable.

B. Positions and Honors.

Positions and Employment

2004-2005	Chief Resident (Neurology), Harvard Medical School, Beth Israel Deaconess Medical Center
2002-2005	Clinical Fellow in Neurology, Harvard Medical School
2005-2007	Associate Medical Director, Wien Ctr for Alzheimer's Disease and Memory Disorders, MSMC
2005-2007	Director, Research Unit in Medical Education, Mount Sinai Medical Center
2005-2007	Attending Neurologist, Mount Sinai Medical Center
2005- pres	American Academy of Neurology, Undergraduate Education Subcommittee
2005- pres	Assistant Professor of Medicine, University of Miami Miller School of Medicine
2007- pres	Assistant Professor of Neurology, University of Miami Miller School of Medicine
2007- pres	Director, Neurology Residency Training Program, UM Miller School of Medicine
2007- pres	Associate Director, Neurology Medical Student Clerkship, U. Miami Miller School of Medicine
2008- pres	Co-Director, Neuromodule, Neuroscience and Behavior 1st year medical student course
2008- pres	Consortium of Neurology Clerkship Directors Task Force, ED-2/Core Curriculum for Students
2008- pres	Vice Chair of Education, Department of Neurology, U. Miami Miller School of Medicine
2010- pres	Associate Professor of Clinical Neurology, U. Miami Miller School of Medicine
1997, 1999 (summer)	Laboratory of Central Nervous System Studies, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD; Mentor: Dr. Clarence J. Gibbs

Other Experience and Professional Memberships

2001- pres	American Academy of Neurology
2004	Harvard Academy Medical Education Symposium, Workshops in Medical Education
2004	Laboratory teaching assistant, Harvard Medical School, Human Nervous System and Behavior, Second year medical student course
2004	Study Group Instructor, Tufts University Medical School, Neuroanatomy and Neurophysiology
2005- 2007	Graduate Medical Education/Academic Affairs Committee, Mount Sinai Medical Center

2006- 2007 Vice-Chair, Continuing Medical Education Committee, Mount Sinai Medical Center
2007- pres Association of University Professors of Neurology
2008- pres Graduate Medical Education Committee (Voting member), UM/Jackson Memorial Hospital
2008- pres Associate Member, Educational Development Office, U. Miami Miller School of Medicine
2008- pres Board of Directors, Florida Society of Neurology

Honors

2003 Congressional Representative for the American Academy of Neurology, Neurology on the Hill
2005 Teacher of the Year/Attending of the Year, Internal Medicine Residency Training Program, Mount Sinai Medical Center
2006 Invited Course Director/Speaker, ACGME Annual Educational Conference, March 2007, Orlando, FL;
Topic: "Practice-Pattern-based Curriculum Development"
2006 Alumni of Distinction Award, Commack High School, Commack, NY
2008 Invited Speaker, American Academy of Neurology 2008 Annual Meeting
Topic: "Measuring Educational Outcomes in Neurology"; Clerkship/Program Directors Conf
2008 Invited Speaker, Association of University Professors of Neurology – Clerkship Dir Boot Camp
Topic: "Education Research Methods in Dementia"
2008 American Academy of Neurology Leadership Development Program
2008 Congressional Representative for the American Academy of Neurology, Neurology on the Hill
2008 Chairman's Award for Teaching Excellence, Dept of Neurology, UM Miller School of Medicine
2009 Scientific Highlights Session (Top 5% of program)/Platform presentation, American Academy of Neurology Annual Meeting, AAN Education Research Grant
2009 American Academy of Neurology, A.B. Baker Teacher Recognition Award
2009 Visiting Professor of Neurologic Education, University of Rochester
Topic: "Measuring Educational Outcomes in Neurology"

C. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

Most relevant to the current application:

1. Lynne J, Ali I, Newman-Toker D, Isaacson RS. ACE Journal Watch from ACE (Alliance For Clinical Education): Review of Medical Education Articles in Neurology 2007-2008. Teach Learn Med. 2009 Oct;21(4):351-4.
2. Isaacson RS, Utley B, Cheng N, Portnoy K. Advice to Medical Students: Neurology. American Academy of Neurology website, August 2008. Published in print and on-line at http://www.aan.com/go/education/students/medical/advice, refereed by the Undergraduate Education Subcommittee.
3. Robens J, Isaacson RS, Poppiti R, Robinson M. Does a practice-pattern and evidence-based autopsy curriculum improve outcomes? *ACGMe-Bulletin*, pg 14-15. May 2007. Published in print and on-line at https://www.acgme.org/acWebsite/bulletin-e/e-bulletin05_07.pdf.
4. Chediak A, Esparis B, Isaacson R, De la Cruz L, Ramirez J, Rodriquez JF, Abreu A. How many polysomnograms must sleep fellows score before becoming proficient at scoring sleep? *J Clin Sleep Med,* 2006; 2(4):427-430.
5. Isaacson RS. Practice-Pattern Based Curriculum Development. *ACGME Bulletin*, pg. 15-19. April 2006. Published in print and on-line at https://www.acgme.org/acWebsite/bulletin/bulletin04_06.pdf.
6. Isaacson RS, Gelb DJ. Advice to Medical Students: Neurology. American Academy of Neurology website, August 2005. Published in print and on-line at http://www.aan.com/go/education/students/medical/advice.

Additional recent publications of importance to the field (in chronological order):

1. Isaacson RS, Ochner C, Safdieh J. Evaluating the Effectiveness of Continuum as a Teaching Tool for Medical Students: A Randomized, Multi-Center Trial. *Neurology*. 2009; 71 (suppl).
2. Steiner SD, Barker WW, Isaacson, R. Implementation of the 2006 AAN Parkinson Disease Practice

Guidelines as a teaching curriculum improves medical student and resident evidence-based knowledge. *Neurology*. 2007; 68 (suppl): A76.

3. Robens J, Isaacson RS, Poppiti R, Robinson M. Does a practice-pattern and evidence-based autopsy curriculum improve outcomes? Abstract accepted for oral and poster presentation at the 2007 *ACGME Education Conference*, Orlando, FL.

4. Penhall BD, Habibnejad S, Weinberg GB, Young A, Isaacson RS. Do resident documentation practices improve after web-based focused teaching intervention? Abstract presented at the 2007 *ACGME Education Conference*, Orlando, FL.

5. Maldonado C, Tolentino A, Isaacson RS. Practice-pattern and evidence-based curriculum development in cardiology: Does a web based educational tool for Internal Medicine residents improve outcomes? Abstract presented for presentation at the 2007 *ACGME Education Conference*, Orlando, FL.

6. Steiner SD, Barker WW, Isaacson RS. Implementation of the 2006 American Academy of Neurology Parkinson Disease Practice Guidelines as a teaching curriculum improves medical student and resident evidence-based knowledge. *Movement Disorders*. 2006; 21 (suppl) 15:S458.

7. Isaacson RS, Ronthal M, Schussler E, Edlow JA. Focused Teaching Intervention Improves Diagnosis, Management and Neuroimaging Utilization in Emergency Department Patients with Back and Neck complaints. *Neurology*. 2006; 66 (suppl): A18.

8. Isaacson RS, Schussler E, Ronthal M, Edlow J. Diagnosis and management of Neck and Back complaints in the ER: Does focused teaching intervention improve clinical practice? Abstract presented at the ACGME/ ABMS sponsored "Practice-based Learning and Improvement" conference, September 21, 2005, Chicago, IL and published on-line at http://www.acgme.org/outcome/conferences/ pbli_abstractP14.pdf.

9. Isaacson RS, Young DA, Weinberg G. Educational Innovations Project Pilot Project: Developing a core and rotating Internal Medicine Curriculum. Abstract presented at the ACGME/ ABMS sponsored "Practice-based Learning and Improvement" conference, September 21, 2005, Chicago, IL and published on-line at http://www.acgme.org/outcome/conferences/pbli_abstractP13.pdf.

D. Research Support

Ongoing Research Support:

Optimizing healthcare delivery via an integrated electronic medical record-outcomes assessment and database tool Principal Investigator: Richard S. Isaacson, MD; Mentor: Ralph L. Sacco, MD, MS, FAAN, FAHA
Miami McKnight Center for Cognitive Aging, 08/01/07-06/30/2012
National Institutes of Health – Clinical Research LRP, 07/01/08-06/30/10
Role: Principal Investigator

Completed Research Support:

Evaluating the Effectiveness of *Continuum* as a Teaching Tool for Medical Students
Principal Investigator: Richard S. Isaacson, MD
American Academy of Neurology, 01/01/08-06/30/09
Role: Principal Investigator

Cyanobacterial toxin (BMAA) in brain and hair tissue of Alzheimer's disease patients
Principal Investigator: Richard S. Isaacson, MD
Alzheimer's Association, 01/1/09-05/31/10
Role: Principal Investigator

Cognitive-Cardiovascular Screening and Educational Intervention Program for Hispanics and Non-Hispanics
Principal Investigators: Richard S. Isaacson, MD (Education), Ranjan Duara, MD (Clinical)
Mount Sinai Medical Center Foundation, 07/01/06-6/30/07
Role: Co-Principal Investigator

Alzheimer's Disease Neuroimaging Initiative (ADNI)
Principal Investigator (MSMC Site): Ranjan Duara, MD
National Institutes of Health, 01/01/06-06/30/07
Role: Co-Investigator/Study Physician (MSMC site)

A Randomized Double-Blind Placebo-Controlled Trial of the Effects of Docosahexaenoic Acid (DHA) in Slowing the Progression of Alzheimer's Disease
Principal Investigator (MSMC Site): Ranjan Duara, MD
National Institute on Aging, Alzheimer's Disease Cooperative Study (ADCS), 01/01/06-06/30/07
Role: Co-Investigator/Study Physician (MSMC site)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Katzen, Heather	Research Assistant Professor
eRA COMMONS USER NAME (credential, e.g., agency login) HLKATZEN	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Emory University, Atlanta, GA	BS	1993	Psychology
University of Miami, Coral Gables, FL	MS	1996	Neuropsychology
University of Miami, Coral Gables, FL	PhD	2000	Neuropsychology

A. Positions and Honors

Research and Professional Experience

Positions and Employment

1993-1994 Teaching Assistant, Department of Psychology, University of Miami, Coral Gables, FL
1993-1997 Research Assistant, Department of Neurology, Division of Neuropsychology, University of Miami School of Medicine, Miami, FL
1996 Course Instructor, Abnormal Psychology, University of Miami, Coral Gables, FL.
1996-1997 Supervisor of Undergraduate Independent Research, Department of Psychology, University of Miami, Coral Gables, FL
1997-1998 Neuropsychology Intern, Long Island Jewish Medical Center/Hillside Hospital, Glen Oaks, NY
1998-2000 Predoctoral Fellow in Neuropsychology, Department of Neurology, University of Miami School of Medicine, Miami, FL
2000-2002 Postdoctoral Fellow, Neuropsychology in Neurology, Weill Cornell Medical College-New York Presbyterian Hospital, New York, NY
2002-2003 Instructor of Neuropsychology in Neurology, Weill Cornell Medical College
2002-2003 Assistant Attending Neuropsychologist, New York Presbyterian Hospital
2003-2006 Neuroscience Scientific Liaison, Medical Affairs, Ortho-McNeil Janssen, Johnson & Johnson
2006- Assistant Research Professor, Department of Neurology, University of Miami Miller School of Medicine
2006- Adjunct Research Assistant Professor, Neuropsychology in Neurology, Department of Neurology and Neuroscience, Weill Medical College of Cornell University

Honors

1990-1993 Dean's List, Emory University
1993-1994 Graduate School Scholarship and Teaching Assistantship: Department of Psychology
1994-1996 Graduate School Scholarship and Research Assistantship: Department of Neurology and the National Parkinson Foundation
1996-1997 Graduate School Scholarship and Research Assistantship: Department of Neurology and the Dade County Juvenile Court System
1996-1997 Letters of Commendation, University of Miami, Department of Psychology

Licensure and Professional Societies

2001- Licensed Psychologist, State of New York, October 2001; Registration #014973
2006- Licensed Psychologist, State of Florida, June 2006; License #7371
1994- Member, American Psychological Association: Division 40

1998- Member, International Neuropsychological Society

3. Selected Peer-reviewed Publications

Katzen, H., Levin, B. & Llabre, M. (1998). Age of disease onset influences cognition in Parkinson's disease. Journal of the International Neuropsychological Society, 4, 285-290.

Levin, B.E., **Katzen, H.L.**, Klein, B.K. & Llabre, M.M. (2000). Ascertainment Bias in Longitudinal Studies of Patients with Parkinson's Disease, Journal of Clinical and Experimental Neuropsychology, 22(5): 580-586.

Roberts, J.S, LaRusse, S.A, Katzen, H.L., Whitehouse, P.J., Barber, M, Post, S. Relkin, N., Quaid, K., Pietrzak, R.A., Cupples, L.A., Farrer, L.A., Brown, T.A., Green, R.C. (2003). Reasons for Seeking Genetic Susceptibility Testing Among First-Degree Relatives of People with Alzheimer Disease. Alzheimer Disease & Associated Disorders.

Ravdin & **Katzen**. (2003) Verbal Fluency Performance in Normal Aging: Effect of Mild Depression and Age Stratified Norms, The Clinical Neuropsychologist, 17 (2); 195-202.

Grossman, A. Levin, B., **Katzen, H.**, and Lechner (2004). PTSD Symptoms and Onset of Neurologic Disease in Elderly Trauma Survivors, Journal of Clinical and Experimental Neuropsychology, 26 (5); 698-705.

LaRusse S, Roberts JS, Marteau TM, **Katzen H**, Linnenbringer EL, Barber M, Whitehouse P, Quaid K, Brown T, Green RC, Relkin NR (2005). Genetic susceptibility testing versus family history-based risk assessment: Impact on perceived risk of Alzheimer disease. Genet Med. Jan;7(1):48-53.

Katzen, H.L., Levin, B.E., Weiner, W. (2006). Side and Type of Motor Symptom Influence Cognition in Parkinson's Disease. Movement Disorders, 21 (11); 1947-1953.

LaRusse, S., **Katzen, H.**, Brown, T. Barber, M., Whitehouse, P., Green, R., Ravdin, L., Roberts, S. Cupples, L.A. and Relkin, N. (2006). Recall of disclosed apolipoprotein E (APOE) genotype and lifetime risk estimates for Alzheimer's disease: The REVEAL Study. Med. Dec; 8(12); 746-751.

Ravdin L.D., & **Katzen, H.** (2007). Taking Stock of Cognitive Reserve: Factors affecting the brain's vulnerability to disease and trauma. Journal of Clinical and Experimental Neuropychology, 1-2.

Scanlon, B. K., **Katzen, H. L.,** Levin, B. E., Singer, C., & Papapetropoulos, S. (2008). A formula for the conversion of UPDRS-III scores to Hoehn and Yahr stage. Parkinsonism & Related Disorders, 14(4), 379-380.

Papapetropoulos, S., **Katzen, H.,** Schrag, A., Singer, C., Scanlon, B. K., Nation, D., Guevara, A., & Levin, B. (2008). A questionnaire-based (UM-PDHQ) study of hallucinations in Parkinson's disease. BMC Neurology, 8(21).

Ravdin L.D. & **Katzen, H.,** Relkin, N.R. (2008). Features of Gait Most responsive to Tap Test in Normal Pressure Hydrocephalus. Clinical Neurology and Neurosurgery, 110(5):455-61.

Nation, D. A., **Katzen, H. L.**, Scanlon, B. K., Papapetropoulos, S., & Levin, B. E. (2009). Defining Subthreshold Depression in Parkinson's Disease. International Journal of Geriatric Psychiatry, Feb 11. ; 24(9): 937-943. [Epub ahead of print].

Tsakanikas, D. **Katzen, H.L.,** Ravdin, L.D., & Relkin, N.R. (2009). Upper extremity motor measures of Tap Test response in Normal Pressure Hydrocephalus. Clinical Neurology and Neurosurgery, Nov: 111 (9): 752-7.

Papapetropoulos, S., **Katzen, H.,** Scanlon, B., Guevera, A., Singer, C., & Levin, B. (2010). Objective quantification of neuromotor symptoms in Parkinson's disease: implementation of a portable, computerized measurement tool. Parkinson's disease, Vol. 2010. Article ID 760196, 6 pages, 2010. doi:10.4061/2010/760196.

Katzen, H., Myerson, C., Papapetropoulos, S., Nahab, F., Gallo, B. & Levin, B. (2010). Multi-modal hallucinations and cognitive function in Parkinson's disease. Dementia and Geriatric Cognitive Disorders, 30 (1):51-56.

Katzen, H., Ravdin, L.D., Assuras, S., Heros, R., Kaplitt, M., Schwartz, T. H., Fink, M., Levin, B.E., & . Relkin, N.R. (in press). Post-shunt cognitive and functional improvement in idiopathic Normal Pressure Hydrocephalus (iNPH). Neurosurgery.

C. Research Support

K23 NS045051 Katzen (PI) 5/10/06-11/30/11
Recovery of Cognitive Functions Following Shunt Placement in Normal Pressure Hydrocephalus

The major goal of this project is to examine cognitive outcome in NPH following placement of programmable shunts. A second goal is to determine whether shunting parameters contribute to cognitive outcome in NPH.

Role: PI

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Bonnie E. Levin, Ph.D.	Associate Professor of Neurology and Psychology
eRA COMMONS USER NAME bonnie_levin	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Georgetown University	BS	1974	Psychology
Temple University	Ph.D.	1983	Psychology

A. PROFESSIONAL EXPERIENCE

EMPLOYMENT:

1979-1980	Fellow in Psychology, Department of Psychiatry, Harvard Medical School, Boston, MA
1979-1980	Intern, Clinical Pediatric Neuropsychology, Children's Hospital Center, Boston, MA.
1980	Extern, Boston Veteran's Administration Hospital, Boston, MA
1981-1982	Instructor, Department of Neurology, University of Miami
1981	Director, Division of Neuropsychology, Department of Neurology, University of Miami
1986-1992	Assistant Professor, Department of Neurology, University of Miami
1992-	Associate Professor, Department of Neurology, University of Miami

AWARDS AND OTHER PROFESSIONAL EXPERIENCE:

1974-Cum Laude, Georgetown University; Psi Chi Honor Society
Fellow, Mahoney Residential College
International Neuropsychology Society (INS) Program Chair-1997
INS Board of Governors 1998-2001
NINDS Study Section Member NSD-K, 2001-2005
NINDS AD hoc Reviewer-NSD-A 2001, 2002
NINDS Special Emphasis Panels 7/1998, 8/1999, 12/1999, 5/2000, 8/2000, 10/2000, 12/2001, 6/2001, 10/2001, 8/2002, 12/2002, 1/2004, 8/2004, 12/2004, 2/2005, 1/2006, 10/2006, 11/2006, 11/2006, 6/2007, (6/24 & 6/29) 3/2008, 4/2008.
NINDS Ad hoc reviewer, NSD-K, 2006 - 2008
Alzheimer Association Medical and Scientific Council Reviewer, 1999, 2002
Consultant: University of Miami Brain Endowment Bank, Department of Neurology; Clinical Neuroscience Unit, UM Department of Neurology
Member, NABIS: H II Date Safety of Monitoring Board
Pediatrics; UM Sleep Center, Department of Neurology.
Professional Advisory Board: Epilepsy Foundation of South Florida
Editorial Boards: Neuropsychology, Journal of the International Neuropsychological Society (JINS), Aging, Neuropsychology and Cognition, Journal of Clinical & Experimental, Neuropsychology (JCEN)

B. SELECTED PUBLICATIONS:

Levin, B.E., Weiner, W.J.: Psychosocial Aspects of Parkinson's disease. In:W.C. Koller, (Ed), Handbook of Parkinson's Disease. In:M. Decker, Inc., New York, 1987; 465-474.
Levin, B.E., Llabre, M.M., Weiner, W.J.: Parkinson's disease and depression:Psychometric properties of the Beck Depression Inventory. Journal of Neurology, Neurosurgery, and Psychiatry, 1988;51:1401-4.
Levin, B.E., Llabre, M.M., Weiner, W.J.:Cognitive impairments associated with early Parkinson's disease. Neurology, 1989,39:557-561.
Kramer, J.H., Levin, B.E., Brandt, J., Delis, D.C.:Differential verbal learning impairments in Alzheimer's, Huntington's and Parkinson'sdisease. Neuropsychology, 1989;3:111-120.
Levin, B.E.,:Organizational deficits in dyslexia: Possible frontal lobe dysfunction. Developmental Neuropsychology, 1990;6(2):95-110.
Levin, B.E., Llabre, M.M., Ansley, J., Brown, M.C., Weiner, W.J., Sanchez-Ramos, J.: Visuospatial Impairments in Parkinson's disease. In: M. Streifler, A. Korczyn (Eds). Parkinson's Disease: Anatomy, Pathology, and Therapy. Advances in Neurology, 1990; 53:624-629.

Levin, B.E., :Spatial cognition in Parkinson's disease. Alzheimer Disease and Associated Disorders, 1990;4:161-170.
Levin, B.E., Llabre, M.M., Weiner, W.J., Brown, M.C.:Visuospatial decline in Parkinson's disease. Neurology, 1991;41:365-369.
Levin, B.E., Feldman, E., Duchowny, M.S., Brown, M.C.:Neuropsychological assessment of children with epilepsy. International Journal of Pediatrics, 1991;6:214-219.
Levin, B.E.., Llabre, M.M., Reisman, S., Weiner, W.J., Brown, M.C.:A retrospective study of the effects of anticholinergic medication on memory performance in Parkinson's disease. Journal of Neuropsychiatry and Clinical Neurosciences, 1991;3:412-416.
Levin, B.E.; Duchowny, M.S. Childhood obsessive compulsive disorder and cingulate epilepsy. Biological Psychiatry, 1991;30:1049-1055.
Brown, M.C., Levin, B.E., Ramsay, R.E., Katz, D.A., Duchowny, M.S.:Characteristics of patients with non-epilpetic seizures. Jouranl of Epilepsy, 1991;4:225-229.
Levin, B.E., Tomer, R., Rey, G.J.: Clinical Correlates of Cognitive Impairments in Parkinson's disease. In: S.J. Huber and J.L. Cummings (Eds), Parkinson's Disease: Behavioral and Neuropsycholgical Aspects: New York: Oxford University Press. 1992; 97-106.
Post, J.M., Levin, B.E., Berger, J.R., Duncan, R., Quencer, R., Calar, G.:Prospective revaluation by cranial MR of both asymptomatic and neurologically symptomatic HIV + subjects. American Journal of Neuroradiology, 1992, 13:359-370.
Levin, B.E., Tomer, R. Rey, G.L.: Clinical Correlates of Cognitive Impairment in Parkinson's Disease: Behavioral and Neuropsychological Aspects. New York: Oxford University Press. 1992;97-106.
Levin, B.E., Tomer,R.: Cognitive Function in Parkinson's disease. In: J. Cedarbaum and S. Gancher (Eds), Neurologic Clinics of North America:Issue on Parkinson's Disease. 1992; 10:471-485.
Levin, B.E., Berger, J.R., Didona, T., Duncan, R.:Cognition in asymptomatic HIV infection. Neuropsychology, 1992;6:303-313.
Tomer, R., Levin, B.E., Weiner, W.J.:Obsessive compulsive symptoms and motor asymmetries in Parkinson's disease. Neuropsychiatry, Neuropsychology and Behavioral Neurology, 1993;6:26-30.
Feldman, E., Levin, B.E., Lubs, H.L., Rabin, M., Lubs, M.L., Jallad, B., Kusch, A.: Adult dyslexia: A retrospective developmental and psychosocial profile. Journal of Neuropsychiatry and Clinical Neurosciences, 1993;5:195-199.
Tomer, R., Levin, B.E.: Differential affects of aging in two verbal fluency tasks. Perceptual and Motor Skills, 1993;76:465-466.
Kelley, R.E., Chang, J.Y., Suzuki, S., Levin, B.E., Reyes-Iglesia, Y.:Selective increase in transcranial doppler velocity during a cognitive task. Cortex, 1993;29:45-52.
Brown, M.C., Levin, B.E., Ramsay, R.E., Landy, H.J.:Comprehensive evaluation of left hemisphere Type 1 schizencephaly. Archives of Neurology, 1993;50:667-669.
Tomer, R., Levin, B.E., Weiner, W.J.:Side of motor onset influences cognition in Parkinson's disease. Annals of Neurology, 1993;34:579-584.
Rey, G., Levin, B.E., Rodas, R., Bowen, B., Nedd, K.:A longitudinal examination of crossed aphasia. Archives of Neurology, 1994;51:95-100.
Duchowny, M., Levin, B.E., Jayakar, P., Resnick, T.: Neurobiologic factors and the selection of children for epilepsy surgery. Journal of Child Neurology, 1994(2);2S42-2S49
Rey, G., Tomer, R., Levin, B.E., Sanchez-Ramos, J., Bowen, B., Bruce, J.H.: Psychiatric symptoms, atypical dementia and left-visual field inattention in cortico-basal ganglionic degeneration. Movement Disorders, 1995;10(1):106-110.
Levin, B.E., Katzen, H.: Early Cognitive Changes in Parkinson's Disease. In: W. Weiner and A. E. Lang. Behavioral Neurology of Movement Disorders. Advances in Neurology, 1995;65:85-89.
Feldman, E., Levin, B.E., Fleischmann, J., Jallad, B., Kushch, A., Gross-Glenn, K., Rabin, M., & Lubs., H.A.:Gender differences in the severity of adult familial dyslexia. Reading and Writing, 1995;7:155-161.
Goldstein, R., Duchowny, M., Jayakar, P., Altman, N., Resnick, J., Levin, B.E., Harvey, A.S., Alvarez, L.: Predictors of seizure relief after temporal lobectomy in children. Journal of Child Neurology, 1996, 11 (6), 445-450.
Duchonwy, M., Jayakar, P., Harvey, S., Resnick, T., Alvarez, L., Dean P. Levin, B.E.:Language cortex representation: Effects of developmental versus acquired pathology. Annals of Neurology, 1996,40:31-38.
Shulman, L.M., Singer, C., Levin, B.E., Weiner, W.J.:Diagnostic testing for dementia patients with Parkinson's disease. Journal of the American Gerontological Society, 1996, 44(2) 214-215.
Katzen, H., Levin, B.E., Llabre, M.:Age of onset inflences dementia in Parkinson's disease. Journal of International Neurosychological Society, 1998, 4, 285-290.

Rey, G.J., Feldman, E., Levin, B.E., Rivas-Vazquez, R., Benton, A.L.: Current trends and future of neuropsychological research with Hispanics. Archives of Clinical Neuropsychology, 1999; 14(7), 593-601.
Levin, B.E., Katzen, H.L., Klein, B., Llabre, M. Cognitive decline affects subject attrition in longitudinal research. Journal of Clinical and Experimental Neuropsychology. 22 (5), 580-586.
Klein, B., Levin, B.E., Duchowny, M.S., Llabre, M.: Cognitive outcome of children with epilepsy and malformations of cortical development. Neurology 2000,55,230-235.
Weiner, WJ, Rabinstein, A, Levin, B.E, Weiner, C. Shulman, LM Cocaine-induced persistent dyskinesias, Neurology2001;564 964-965.
Arena, P., Levin, B., Fleming, L, Friedman, M., Blythe, D. A pilot study of the cognitive and psychological correlates of chronic ciguatera poisoning. Harmful Algae 3 (2004) 51-60.
Grossman, AB, Levin, BE, Katzen, HL., Lechner, S. PTSD symptoms and onset of neurologic disease in elderly trauma survivors. Journal of Clinical and Experimental Neuropsychology, 2004, 26(5), 698-705.
Friedman, MA, Levin, BE. Neuropsychological effects of harmful algal bloom (HAB) toxins. Journal of International Neurological Society (2005) 11(3):331-8.
Levin, BE, Katzen, H. Early cognitive changes and nondementing behavioral abnormalities in Parkinson's disease. In: W. Weiner and A. E. Lang. Behavioral Neurology of Movement Disorders. Advances in Neurology, 2005.
Grossman, A. B., Levin, B. E., & Bradley, W. G. (2006). Premorbid personality characteristics of patients with ALS. Amyotroph Lateral Scler, 7(1), 27-31.
Katzen, H. L., Levin, B. E., & Weiner, W. (2006). Side and type of motor symptom influence cognition in Parkinson's disease. Mov Disord, 21(11), 1947-1953.
Scanlon, B. K., Katzen, H. L., Levin, B. E., Singer, C., & Papapetropoulos, S. (2008). A formula for the conversion of UPDRS-III scores to Hoehn and Yahr stage. *Parkinsonism & Related Disorders, 14*(4), 379-380.
Papapetropoulos, S. Katzen, H., Schrag, A., Singer, C., Scanlon, B. K., Nation, D. Guevara, A. & Levin, B.E.(in press) A questionnaire-based (UM-PDHQ) study of hallucinations in Parkinson's disease. BMC Neurology.
Nation, DA, Katzen, HL, Scanlon, B.E., Papapetropolis, S, Duncan R, Rodriguez, RA, Singer, C, Levin, BE. Defining subthreshold depression in Parkinson's disease, International Journal of Geriatric Neuropsychiatry, 2009, 24 (9) 937-943.
Levin, BE. Behavioral/Neuropsychological outcomes and quality of life endpoints, Woodbury KM, Coull BM (eds) Clinical Trials in Neurosciences. Frontiers of Neurology and Neuroscience. Basel, Karger, 2009 (25) ; 78-92.
Nahab FB, Levin B. Deception. In: Hallett M, Cloninger CR, Fahn S, Halligan P, Jankovic J, Lang AE, Voon V, eds. Psychogenic Movement Disorders and Other Conversion Disorders. Cambridge University Press (in press).
Chou, KL, Amick, M.M., Brandt, J and others (Levin, B.E.) (in press)A recommended scale for cognitive screening in clinical trials of Parkinson's disease. Recommendations of a task force in behalf in the Parkinson Study Group Cognitive Behavioral Working Group, Movement Disorders.
Katzen, H., Myerson, C., Papapetropoulos, S., Nahab, F., Gallo, B. & Levin, B. (in press). Multi-modal hallucinations and cognitive function in Parkinson's disease. Dementia and Geriatric Cognitive Disorders.
Katzen, H., Ravdin, L.D., Assuras, S., Heros, R., Kaplitt, M., Schwartz, T. H., Fink, M., Levin, B.E., & . Relkin, N.R. (in press). Post-shunt cognitive and functional improvement in idiopathic Normal Pressure Hydrocephalus (iNPH). Neurosurgery.
Papapetropoulos, S., Katzen, H., Scanlon, B., Guevera, A., Singer, C., & Levin, B. (in press)
Objective quantification of neuromotor symptoms in Parkinson's disease: implementation of a portable, computerized measurement tool. Parkinson's Disease.

Relevant Refereed Abstracts

Myerson, C.E., Katzen, H.L., Nahab, F.B., Levin, B.E. (2010, February). Redfining the link between apathy and cognition in Parkinson's disease. Presented at the International Neuropsychological Society, 38th Annual Meeting, Acapulco, Mexico

Marion, I.B., Katzen, H.L., Myerson, C.E., Rodriguez, K., Gallo, B.V., Levin, B.E. (2009, December). Neuropsychological Outcome Following Unilateral STN DBS: A Comparison of English-speakers and Spanish-speakers. Presented at the XVIII World Federation of Neurology World Congress on Parkinson's Disease and Related Disorders, Miami Beach, FL.

Katzen, H, Assuras, S., Ravdin, L., Strybing, K.,Heros, R., Schwartz, T.,Fink, M., Kaplitt, M., Levin, B., Relkin, N. (2009, October). Improvement in Gait and Cognition Following Shunt Placement in Idiopathic Normal Pressure Hydrocephalus. Oral presentation at the annual Hydrocephalus meeting, Baltimore, MD.

Myerson, C.E., Katzen, H.L., Ledon, J., Mittel, A., McClendon, M., Nahab, F.B., Gallo, B.V., Levin, B.E. (2009, November). Cardio-metabolic co-morbidities and cognitive decline in Parkinson's disease. Poster accepted for presentation at the National Academy of Neuropsychology, 29th Annual Conference, New Orleans, LA.

Myerson, C.E., Katzen, H.L., Papapetropoulos, S., Ledon, J., Nahab, F.B., Gallo, B.V., Levin, B.E. (2009, October). Multi-modal hallucinations and cognitive function in Parkinson's disease. Presented at the American Neurological Association 134th Annual Meeting. Baltimore, MD.

Myerson, C.E., Katzen, H.L., Marion, I.B., Mittel, A.M., Nahab, F.B., Gallo, B.V., Levin, B.E. (2009, December). Profiles of apathy and depression in Parkinson's disease. Presented at the XVIII World Federation of Neurology World Congress on Parkinson's Disease and Related Disorders, Miami Beach, FL.

Levin, B. E. (2007). Neuropsychological predictors of all-cause mortality in Parkinson's disease. Journal of the International Neuropsychological Society, 13(Supplement S1), 96-97.

RESEARCH SUPPORT

ACTIVE:

2U01NS38529-07A1 (Benavente/ Romano, site PI) 02/01/2008-6/30/2011 3%
NIH/NINDS $306,8000
Secondary Prevention of Small, Subcortical Strokes (SPS3)

1 UO1 NS052478-01A2 (Adelson) 7/30/07 – 6/30/2013
NINDS $1,627,822 (Site Neuropsychologist) 4.80 Calendar months
Pediatric Traumatic Brain Injury Consortium: Hypothermia

R01 NS055107-04 (Maudsley) NIH/NINDS 6/01/06-12/31/12 (10%)
Volumetric MRSI Evaluation of Traumatic Brain Injury $333,850

R01 NS060874-02 (Govindaraju) NIH/NINDS 9/30/08-8/31/12 (5%)
Brain Metabolic Imaging in Amyotrophic Lateral Sclerosis $301,219

A Pilot Study of Moderate Hypothermia for Severe Traumatic Brain Injury in Children, N.I.H., P. Davis Adelson (PI) Univ. of Pittsburgh.
Role: Site Neuropsychologist.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Nahab, Fatta B.	Assistant Professor of Neurology
eRA COMMONS USER NAME (credential, e.g., agency login) fnahab	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
La Sierra University (Riverside, CA)	B.S.	1992-1996	Biology
Loma Linda University (Loma Linda, CA)	M.D.	1996-2000	Medicine
Loma Linda University Medical Center (Loma Linda, CA)	Internship	2000-2001	Int. Medicine/Psychiatry
	Residency	2001-2004	Neurology
	Chief Resident	2003-2004	Neurology
Human Motor Control section, NINDS National Institutes of Health, Bethesda, MD	Fellowship	2004-2008	Movement Disorders and Functional MRI

A. Positions and Honors

Positions and Employment

2004-2008 Neurology Consultant, NIH Clinical Center, Bethesda, MD
2005-2008 Director, NIH Botulinum Toxin Clinic, Bethesda, MD
2005-2007 General Medical Hospitalist, Shady Grove Adventist Hospital, Rockville, MD
2007-2008 Assistant Clinical Investigator, NINDS, NIH, Bethesda, MD
2008-present Assistant Professor of Neurology, University of Miami, Miami, FL
2008-present Director of Research, Section of Movement Disorders, Dept. of Neurology, University of Miami
2008-present Director, Functional Imaging of Neurodegenerative Disorders Laboratory

Patents

WO 2007/044437 Title : Octanol Formulations and Methods of Treatment (USA,CAN,EUROPE)
Inventors: FB Nahab, M Hallett, J Serbin

WO2009/102443 Title: Octanoic Acid Formulations and Methods of Treatment
Inventors: FB Nahab, M Hallett, J Mclane

Other Experience and Professional Memberships

Scientific Reviewer: Clinical Neurophysiology, Human Brain Mapping, Journal of Psychiatric Research, Movement Disorders, Brain, NeuroImage, Parkinsonism & Related Disorders

Professional Memberships:

2001-present American Academy of Neurology
2004-present Movement Disorder Society
2009-present Organization of Human Brain Mapping

Honors and Awards (selected):

1997 Summer Research Scholarship, MacPherson Society
1998 Excellence in Research Award, Western Medical Student Research Forum
1998 Outstanding Service Award, Iacono Movement Disorder and Neuroscience Group
2002-2004 Academic Development Award, Loma Linda University Dept of Neurology
2004 Resident Scholarship, American Academy of Neurology
2004 Alpha Omega Alpha Medical Honor Society Membership

2008 J. Stephen Fink, MD PhD American Society for Experimental NeuroTherapeutics (ASENT) Fellow
2009-10 Best Doctors in America
2009-11 Who's Who in Medicine
2010 Chairman's Award for Teaching Excellence

B. Peer-reviewed Publications

Recent publications (in chronological order)

1. Iacono RP, **Nahab FB**, Nahab FH. Serotonergic decompensation in the akinetic expression of Parkinson's disease. *Int J Neurosci*, 2000, 101(1-4) p57-63.
2. **Nahab FB**, Worrell GA, Weinshenker BG. 25-year-old man with recurring headache and confusion. *Mayo Clin Proc,* Jan 2001, 76(1) p75-8.
3. Elble R, Tremor Research Group and Conference Attendees (**Nahab FB**). Report from a US consensus conference on essential tremor. *Movement Disorders, October 2006.*
4. **Nahab FB**, Peckham E, Hallett M. Essential tremor: deceptively simple... *Pract Neurol* 2007; 7(4): 222-233.
5. **Nahab FB**, Peckham E, Hallett M. Pilot study of botulinum toxin type A for the treatment of refractory restless legs Syndrome. *Neurology* 2008; 71 (12): 950-.
6. **Nahab FB**, Hattori N, Saad ZS, Hallett M. Contagious yawning and the frontal lobe: An fMRI study. *Human Brain Mapping* 2009 (30): 1744-1751.
7. Edwards T, Scott B, Almonte C, Burt A, Powell E, Beecham G, Wang L, Zuchner S, Konidari I, Wang G, Singer C, **Nahab FB**, Scott B, Stajich J, Martin ER. Genome-wide association study confirms SNPs in SNCA and the MAPT region as common risk factors for Parkinson disease. Ann Hum Genet, 2010 Jan 13 (Epub ahead of print).
8. **Nahab FB**. Exploring yawning with neuroimaging. Front Neurol Neurosci. 2010; 28: 128-33.
9. **Nahab FB** and Hallett M. In: Yousry T, ed. Neuroimaging Clinics of North America. The role of fMRI in the diagnosis of movement disorders. Neuroimag Clin N Am 20 (2010) 103–110.
10. **Nahab FB**, Kundu P, Gallea C, Kakareka J, Pursley R, Pohida T, Milletta N, Friedman J, Hallett M. The neural processes underlying self-agency. Cerebral Cortex Epub Ahead of Print April 8, 2010.
11. Katzen H, Myerson C, Papapetropoulos S, **Nahab FB**, Gallo B, Levin B. Multi-modal hallucinations and cognitive function in Parkinson's disease. Dement Geriatr Cogn Disord 2010;30:51-56.

C. Research Support

Ongoing Research Support

International Essential Tremor Foundation Nahab (PI) 7/08-6/11
Identification of the neural generator(s) in essential tremor using functional magnetic resonance imaging.
This study will identify the neural network responsible for generating essential tremor.
Role: PI
Total Award: $25,000 (no-cost extension)

Completed Research Support

NIH 5P50NS039764-10 Vance (PI) 9/30/2009 - 5/31/2010
Genetics of Parkinsonism
This study is a Udall Center grant intended to study the genetics of Parkinsonisms.
Role: Co-Investigator on Core B (0.16 cal mo)
Total Cost: $947,606

Intramural NIH 07-N-0160 Nahab (PI) 2007-2008
NINDS/NIH
Pilot study of botulinum toxin, type A for the treatment of restless legs syndrome
This study assessed the utility of botulinum toxin for the treatment of restless legs syndrome in a randomized, double-blind, placebo control design.
Role: PI

Intramural NIH 07-N-0117 Nahab (PI) 2006-2008
NINDS/NIH
BOLD-fMRI of the Perception of Volition in Functional Movement Disorders
This study utilized fMRI to determine whether patients with functional movement disorders had volitional control over their movements.
Role: PI

Intramural NIH 06-N-0243 Hallett (PI) 2006-2008
NINDS/NIH
Brain Connectivity between visual input and motor output.
The neural networks recruited for visually guided vs. unguided movements were studied with fMRI.
Role: Associate Investigator

Intramural NIH 06-N-0139 Peckham (PI) 2006-2008
NINDS/NIH
Treatment for Psychogenic Movement Disorders.
This pilot treatment trial of psychogenic movement disorders studied the use of biofeedback.
Role: Associate Investigator

Intramural NIH 06-N-0128 Hallett (PI) 2006-2008
NINDS/NIH
fMRI studies of task specificity in Focal Hand Dystonia.
This fMRI study identified the writing motor program in healthy controls and compared this region in patients with focal hand dystonia.
Role: Associate Investigator

Intramural NIH 06-N-0084 Hallett (PI) 2006-2008
NINDS/NIH
Brain Networks Responsible for Sense of Agency: An EEG study.
This study followed a similar study I designed using fMRI to study the sense of self-agency.
Role: Associate Investigator

Intramural NIH 06-N-0023 Nahab (PI) 2005-2008
NINDS/NIH
Brain networks responsible for self-agency: An fMRI study.
This fMRI study identified the neural network associated with the perception of voluntary/involuntary control in healthy controls and compared these findings with the networks in patients with functional movement disorders.
Role: PI

Intramural NIH 05-N-0092 Nahab (PI) 2004-2008
NINDS/NIH
Clinical Trial Characterizing the Bioavailability of 1-Octanol in Adults with Ethanol-responsive Essential Tremor.
1-octanol pharmacokinetics, efficacy, and safety were assessed in this phase I/II IND study in patients with ET.
Role: PI

Intramural NIH 05-N-0032 Nahab (PI) 2004-2006
NINDS/NIH
Functional MRI Study of Brain Activation with Observation of Facial Expressions.
This fMRI protocol studied the neural correlates of non-pathologic contagious motor programs (yawning) to determine whether similar networks were involved in tic disorders.
Role: PI

Intramural NIH 04-N-0153 Pirio Richardson (PI) 2004-2006
NINDS/NIH
Timing of Voluntary Movement in Patients with Tourette Syndrome and Chronic Tic Disorder Using EEG and Surface EMG.
This study measured the timing of tic onset using a Libet-type paradigm.

Role: Associate Investigator

Intramural NIH 04-N-0151 Pirio Richardson (PI) 2004-2006
NINDS/NIH
Timing of Voluntary Movement in Patients with Schizophrenia Using EEG and Surface EMG.
This study measured the timing of tic onset using a Libet-type paradigm.
Role: Associate Investigator

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Tatjana Rundek	**Associate Professor of Neurology** **Miller School of Medicine** **University of Miami, Miami, FL**
eRA COMMONS USER NAME **TR89XX**	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Zagreb, College of Mathematics, Croatia	B.S.	1979-1983	Applied Mathematics
Medical School University of Zagreb, Croatia	M.D.	1984-1989	Medicine
Medical School University of Zagreb, Croatia	M.S.	1989-1991	Epidemiology/Bioinformatics
Ludwig-Maximillian University, Munich, Germany	Ph.D.	1991-1995	Neuroscience
Medical School University of Zagreb, Croatia Grossharden Spital Munich, Germany	Residency	1991-1994	Neurology
Columbia University, New York, NY	Fellowship	1998-2000	Stroke/Neuroepidemiology

A. POSITIONS AND HONORS

POSITIONS AND EMPLOYMENT

Traineeship:

1990-91	Medicine Internship	Clinical Hospital for Pulmonary Diseases, Zagreb, Croatia
1991-94	Neurology Residency	Grossharden Spital Munich, Germany
1995-96	Neurosonology Post-Doctoral Fellow	Neurosonolgy Laboratory University of Ulm, Germany
1998-00	Stroke Fellow (Epidemiology)	Columbia University, New York, NY

Academic Appointments:

1994-96	Assistant Professor of Neurology	Department of Neurology, University of Zagreb, Croatia
1996-98	Associate Professor of Neurology	Department of Neurology, University of Zagreb, Croatia
2000-02	Associate Research Scientist	Columbia University, New York, NY
2002-07	Director, Neurosonology Laboratory	Columbia University, New York, NY
2002-07	Assistant Professor of Neurology	Columbia University, New York, NY
2007-	Associate Professor of Neurology	Miller School of Medicine, University of Miami, Miami, FL

Hospital Appointments:

1994-98	Stroke Attending	Department of Neurology, University of Zagreb, Croatia
1995-98	Director, Neurosonology Laboratory	Department of Neurology, University of Zagreb, Croatia
2002-07	Director, Neurosonology Laboratory	Columbia University, New York, NY
2007-	Director, Clinical Translational Research Division in Neurology	Department of Neurology, Miller School of Medicine, University of Miami, Miami, FL

OTHER EXPERIENCE AND PROFESSIONAL MEMBERSHIPS

Editorial Board Member of the Professional Journals: Stroke, Neurology, Journal of CardioMetabolic Syndrome

Ad Hoc Reviewer for the Professional Journals: Stroke, Neurology, Neuroepidemiology, Cerebovascular Diseases, Scandinavian Journal of Rheumatology, Circulation, American Journal of Ultrasound in Medicine, Headache

Memberships:

1997-	American Academy of Neurology
1997-	American Heart Association
1997-	European Federation of Neurological Societies - Dementia Panel Delegate
1994-	American Institute of Ultrasound in Medicine
1994-	European Society of Neurosonology and Cerebral Hemodynamics

HONORS

1997	Fulbright Award and Scholarship, Neurological Institute, Columbia University, New York, NY
1996	George Soros Scholarship, Neurology Seminars, University of Krems, Austria
1995	Humbolt Award, Neurosonology Laboratory, University of Ulm, Germany
2006	Nassau Women Physicians Foundation Award for Stroke Research in Women; Long Island, NY
2009	President, Neurosonology Community Practices of the American Institute of Ultrasound in Medicine

B. SELECTED PEER-REVIEW PUBLICATIONS

(from 11 book chapters, 19 invited articles, 130 peer-reviewed articles)

1. Tugcu A, Okajima K, Jin Z, **Rundek T**, Homma S, Sacco RL, Elkind MS, Di Tullio MR. Septal pouch in the left atrium and risk of ischemic stroke.**PMID: 21163457**
2. Dong C, Beecham A, Slifer S, Wang L, McClendon MS, Blanton SH, **Rundek T**, Sacco RL. Genome-wide linkage and peak-wide association study of obesity-related quantitative traits in Caribbean Hispanics. Hum Genet. 2010 Nov 21. [Epub ahead of print] **PMID: 21104097**
3. Dong C, Beecham A, Slifer S, Wang L, Blanton SH, Wright CB, **Rundek T**, Sacco RL. Genomewide linkage and peakwide association analyses of carotid plaque in Caribbean Hispanics. Stroke. 2010 Dec;41(12):2750-6. Epub 2010 Oct 21. **PMCID: PMC3004531**
4. Rundek T, Katsnelson M. Is frequent ultrasound monitoring of spontaneous cervical artery dissection clinically useful? Neurology. 2010 Nov 23;75(21):1858-9. Epub 2010 Oct 20. No abstract available. **PMID: 20962293**
5. **Rundek T,** Gardener H, Xu Q, Goldberg RB, Wright CB, Boden-Albala B, Disla N, Paik MC, Elkind MS, Sacco RL. Insulin resistance and risk of ischemic stroke among nondiabetic individuals from the northern Manhattan study. Arch Neurol. 2010 Oct;67(10):1195-200. **PMCID: PMC2954671**
6. **Rundek T**, Salameh MJ Carotid plaque assessment: a bumpy road to improved risk prediction. J Am Coll Cardiol. 2010 Sep 21;56(13):1069; author reply 1069-70. No abstract available. **PMID: 20846614**
7. Ramos-Sepulveda A, Wohlgemuth W, Gardener H, Lorenzo D, Dib S, Wallace DM, Nolan B, Boden-Albala B, Elkind MS, Saco RL, **Rundek T**. Snoring and insomnia are not associated with subclinical atherosclerosis in the Northern Manhattan Study. Int J Stroke. 2010 Aug;5(4):264-8. **PMCID: PMC2907549**
8. Kohsaka S, Jin Z, **Rundek T**, Homma S, Sacco RL, Di Tullio MR. Relationship between serum lipid values and atherosclerotic burden in the proximal thoracic aorta. Int J Stroke. 2010 Aug;5(4):257-63. **PMCID: PMC2907532**
9. Demarin V, Lovrencić-Huzjan A, Basić S, Basić-Kes V, Bielen I, Breitenfeld T, Brkljacić B, Cambi-Sapunar L, Jurjević A, Kadojić D, Krolo I, Lovricević I, Lusić I, Rados M, Rotim K, **Rundek T**, Schmidt S, Trkanjec Z, Vargek-Solter V, Vidjak V, Vuković V; Croatian Society for Neurovascular Disorders; Croatian Society of Neurology; Croatian Society of Ultrasound in Medicine and Biology; Croatian Society of Radiology; Croatian Society of Vascular Surgery; Croatian Society of Neurosurgery. Recommendations for the management of patients with carotid stenosis. Acta Clin Croat. 2010 Mar;49(1):101-18. **PMID: 20635593**
10. Russo C, Jin Z, Homma S, **Rundek T**, Elkind MS, Sacco RL, Di Tullio MR. Race/ethnic disparities in left ventricular diastolic function in a triethnic community cohort. Am Heart J. 2010 Jul;160(1):152-8. **PMCID: PMC2898748**
11. Dhamoon MS, Moon YP, Paik MC, Boden-Albala B, **Rundek T**, Sacco RL, Elkind MS. Quality of life declines after first ischemic stroke. The Northern Manhattan Study. Neurology. 2010 Jul 27;75(4):328-34. Epub 2010 Jun 23. **PMCID: PMC2918891**
12. Wang L, Di Tullio MR, Beecham A, Slifer S, **Rundek T**, Homma S, Blanton SH, Sacco RL A comprehensive genetic study on left atrium size in Caribbean Hispanics identifies potential candidate genes in 17p10. Circ Cardiovasc Genet. 2010 Aug;3(4):386-92. Epub 2010 Jun 19. **PMCID: PMC2923674**
13. Della-Morte D, Gardener H, Denaro F, Boden-Albala B, Elkind MS, Paik MC, Sacco RL, **Rundek T**. Metabolic syndrome increases carotid artery stiffness: the Northern Manhattan Study. Int J Stroke. 2010 Jun;5(3):138-44. **PMCID: PMC2980500**
14. Tessitore E, **Rundek T**, Jin Z, Homma S, Sacco RL, Di Tullio MR. Association between carotid intima-media thickness and aortic arch plaques. J Am Soc Echocardiogr. 2010 Jul;23(7):772-7. Epub 2010 May 26. **PMCID: PMC2908509**
15. Della-Morte D, Beecham A, **Rundek T**, Slifer S, Boden-Albala B, McClendon MS, Blanton SH, Sacco RL. Genetic linkage of serum homocysteine in Dominican families: the Family Study of Stroke Risk and Carotid Atherosclerosis.
16. Stroke. 2010 Jul;41(7):1356-62. Epub 2010 May 20. **PMCID: PMC2914470**
17. Desvarieux M, Demmer RT, Jacobs DR Jr, **Rundek T**, Boden-Albala B, Sacco RL, Papapanou PN. Periodontal bacteria and hypertension: the oral infections and vascular disease epidemiology study (INVEST). J Hypertens. 2010 Jul;28(7):1413-21.**PMID: 20453665**
18. Lorenz MW, Bickel H, Bots ML, Breteler MM, Catapano AL, Desvarieux M, Hedblad B, Iglseder B, Johnsen SH, Juraska M, Kiechl S, Mathiesen EB, Norata GD, Grigore L, Polak J, Poppert H, Rosvall M, **Rundek T**, Sacco RL, Sander D, Sitzer M, Steinmetz H, Stensland E, Willeit J, Witteman J, Yanez D, Thompson SG; PROG-IMT Study Group. Individual progression of carotid intima media thickness as a surrogate for vascular risk (PROG-IMT): Rationale and design of a meta-analysis project. Am Heart J. 2010 May;159(5):730-736.e2. **PMID: 20435179**
19. Sashida Y, Rodriguez CJ, Boden-Albala B, Jin Z, Elkind MS, Liu R, **Rundek T**, Sacco RL, DiTullio MR, Homma S. Ethnic differences in aortic valve thickness and related clinical factors. Am Heart J. 2010 Apr;159(4):698-704. **PMCID: PMC2852575**

20. Walker MD, Fleischer JB, Di Tullio MR, Homma S, **Rundek T**, Stein EM, Zhang C, Taggart T, McMahon DJ, Silverberg SJ. Cardiac structure and diastolic function in mild primary hyperparathyroidism Clin Endocrinol Metab. 2010 May;95(5):2172-9. Epub 2010 Mar 12. **PMCID: PMC2869545**
21. Russo C, Jin Z, Homma S, **Rundek T**, Elkind MS, Sacco RL, Di Tullio MR. Effect of diabetes and hypertension on left ventricular diastolic function in a high-risk population without evidence of heart disease. Eur J Heart Fail. 2010 May; 12(5):454-61. Epub 2010 Mar 7. **PMCID: PMC2857987**
22. **Rundek T**, Lalit K .Visual input is critical for postural control in patients with chronic right hemisphere infarcts. Neurology. 2010 Feb 9; 74(6):448-9. No abstract available. **PMID: 20142611**
23. Elkind MS, Luna JM, Moon YP, Boden-Albala B, Liu KM, Spitalnik S, **Rundek T**, Sacco RL, Paik MC. Infectious burden and carotid plaque thickness: the northern Manhattan study. Stroke. 2010 Mar;41(3):e117-22. Epub 2010 Jan 14. **PMCID: PMC2830875**
24. Choi JH, Marshall RS, Neimark MA, Konstas AA, Lin E, Chiang YT, Mast H, **Rundek T**, Mohr JP, Pile-Spellman J. Selective brain cooling with endovascular intracarotid infusion of cold saline: a pilot feasibility study. AJNR Am J Neuroradiol. 2010 May;31(5):928-34. Epub 2010 Jan 6. **PMID: 20053807**
25. Gardener H, Della Morte D, Elkind MS, Sacco RL, **Rundek T**. Lipids and carotid plaque in the Northern Manhattan Study (NOMAS). BMC Cardiovasc Disord. 2009 Dec 22;9: 55. **PMCID: PMC2804671**
26. Sacco RL, Khatri M, **Rundek T**, Xu Q, Gardener H, Boden-Albala B, Di Tullio MR, Homma S, Elkind MS, Paik MC. Improving global vascular risk prediction with behavioral and anthropometric factors. The multiethnic NOMAS (Northern Manhattan Cohort Study). J Am Coll Cardiol. 2009 Dec 8;54(24):2303-11. **PMCID: PMC2812026**
27. Elkind MS, Ramakrishnan P, Moon YP, Boden-Albala B, Liu KM, Spitalnik SL, **Rundek T**, Sacco RL, Paik MC. Infectious burden and risk of stroke: the northern Manhattan study. Arch Neurol. 2010 Jan;67(1):33-8. Epub 2009 Nov 9. **PMCID: PMC2830860**
28. Walker MD, Fleischer J, **Rundek T**, McMahon DJ, Homma S, Sacco R, Silverberg SJ. Carotid vascular abnormalities in primary hyperparathyroidism. J Clin Endocrinol Metab. 2009 Oct;94(10):3849-56. Epub 2009 Sep 15. **PMCID: PMC2758727**
29. Khatri M, Nickolas T, Moon YP, Paik MC, **Rundek T**, Elkind MS, Sacco RL, Wright CB. CKD associates with cognitive decline. J Am Soc Nephrol. 2009 Nov; 20(11):2427-32. Epub 2009 Sep 3. **PMCID: PMC2799177**
30. Koch S, Nelson D, **Rundek T**, Mandrekar J, Rabinstein A. Race-ethnic variation in carotid bifurcation geometry. J Stroke Cerebrovasc Dis. 2009 Sep-Oct; 18(5):349-53. **PMID: 19717017**
31. Wang L, Beecham A, Di Tullio MR, Slifer S, Blanton SH, **Rundek T**, Sacco RL. Novel quantitative trait locus is mapped to chromosome 12p11 for left ventricular mass in Dominican families: the Family Study of Stroke Risk and Carotid Atherosclerosis. BMC Med Genet. 2009 Jul 23;10:74. **PMCID: PMC2724377**
32. Dhamoon MS, Moon YP, Paik MC, Boden-Albala B, **Rundek T**, Sacco RL, Elkind MS. 32. Long-term functional recovery after first ischemic stroke: the Northern Manhattan Study. Stroke. 2009 Aug;40(8):2805-11. Epub 2009 Jun 25. **PMCID: PMC2830874**
33. Russo C, Jin Z, **Rundek T**, Homma S, Sacco RL, Di Tullio MR. Atherosclerotic disease of the proximal aorta and the risk of vascular events in a population-based cohort: the Aortic Plaques and Risk of Ischemic Stroke (APRIS) study.
34. Stroke. 2009 Jul;40(7):2313-8. Epub 2009 Jun 4. **PMCID: PMC2746828**
35. Sacco RL, Blanton SH, Slifer S, Beecham A, Glover K, Gardener H, Wang L, Sabala E, Juo SH, **Rundek T.** Heritability and linkage analysis for carotid intima-media thickness: the family study of stroke risk and carotid atherosclerosis. Stroke. 2009;40(7):2307-12. **PMCID: PMC2737512**
36. Ratchford EV, Jin Z, Tullio MR, Salameh MJ, Homma S, Gan R, Boden-Albala B, Sacco RL, **Rundek T**. Carotid bruit for detection of hemodynamically significant carotid stenosis: Northern Manhattan Study. Neurol Res.2009;31:748-52. **PMCID: PMC2727568**
37. Sacco RL, Khatri M, **Rundek T**, Xu Q, Gardener H, Boden-Albala, Di Tullio M, Homma S, Elkind MSV, Paik MC. Improving Global Vascular Risk Prediction with Behavioral and Anthropometric Factors: The Multi-ethnic Northern Manhattan Cohort Study, JACC 2009.
38. **Rundek T**, Elkind MS, Di Tullio MR, Carrera E, Jin Z, Sacco RL, Homma S. Patent Foramen Ovale and Migraine. A Cross-Sectional Study from the Northern Manhattan Study (NOMAS). Circulation. 2008;118(14):1419-24. **PMCID: PMC2737546**
39. **Rundek T.** PFO in stroke: a direct association or coincidence? Eur J Neurol. 2008;15(9):887-8.
40. **Rundek T**, Sacco RL. Risk factor management to prevent first stroke. Neurol Clin. 2008;26(4):1007-45. **PMCID: PMC2666965**
41. **Rundek T**, Arif H, Boden-Albala B, Elkind MS, Paik MC, Sacco RLS. Carotid plaque thickness predicts ischemic stroke, myocardial infarction and vascular death: The Northern Manhattan Study. Neurology 2008;70(14):1200-7.
42. **Rundek T.** Do women have worse outcome after stroke caused by intracranial arterial stenosis? Stroke. 2007;38(7):2025-7.
43. **Rundek T**, White H, Boden-Albala B, Jin Z, Elkind MS, Sacco RL. The metabolic syndrome and subclinical carotid atherosclerosis: the Northern Manhattan Study. J Cardiometab Syndr. 2007;2(1):24-9.

44. Prabhakaran S, Singh R, Zhou X, Ramas R, Sacco RL, **Rundek T**. Presence of calcified carotid plaque predicts vascular events: the Northern Manhattan Study. Atherosclerosis. 2007;195(1):e197-201.
45. **Rundek T.** Beyond percent stenosis: carotid plaque surface irregularity and risk of stroke. Int J Stroke. 2007;2:169-71.
46. **Rundek T**. Are young people with an elevated carotid intima-media thickness at increased risk of vascular events?
Nat Clin Pract Neurol. 2006; 2(7):362-3.
47. **Rundek T**, Naini A, Sacco RL, Coates K, DiMauro S. Atorvastatin decreases the coenzyme Q10 level in the blood of patients at risk for cardiovascular disease and stroke. Arch Neurol 2004; 61:889-92.
48. **Rundek T,** Nielsen K, Phillips S, Johnston KC, Hux M, Watson D; for the GAIN Americas Investigators. Health Care Resource Use After Acute Stroke in the Glycine Antagonist in Neuroprotection (GAIN) Americas Trial. Stroke 2004; 35(6):1368-74.
49. **Rundek T**, Sacco RL. Outcome following stroke. In: Stroke- Pathophysiology, Diagnosis, and Management, editors J.P. Mohr, D.W. Choi, J.C. Grotta, B. Weir, P.A. Wolf, 4th edition, Churchill Livingstone, Elsevier Inc,2004;Ch.3:35-57.
50. Prabhakaran S, **Rundek T,** Ramas R, Elkind MS, Paik MC, Boden-Albala B, Sacco RL. Carotid plaque surface irregularity predicts ischemic stroke: the Northern Manhattan Study. Stroke. 2006;37(11):2696-701. **PMCID: PMC2654324**
51. Elkind MS, Sciacca RR, Boden-Albala B, Rundek T, Paik MC, Sacco RL. Relative elevation in baseline leukocyte count predicts first cerebral infarction. Neurology. 2005;64(12):2121-5.
52. White M, Boden-Albala B, Wang C, Elkind MS, **Rundek T**, Wright CB, Sacco RL. Ischemic stroke subtype incidence among whites, blacks, and Hispanics: the Northern Manhattan Study. Circulation 2005;15;111(10): 1327-31.
53. Desvarieux M, Demmer RT, **Rundek T**, Boden-Albala B, Jacobs DRJr, Sacco RL, Papapanou PN. Periodontal microbiota and carotid intima-media thickness: the Oral Infections and Vascular Disease Epidemiology Study (INVEST). Circulation 2005;111(5):576-82. **PMCID: PMC2812915**
54. Touboul PJ, Hennerici MG, Meairs S, Adams H, Amarenco P, Desvarieux M, Ebrahim S, Fatar M, Hernandez R, Kownator S, Prati P, Rundek T, Taylor A, Bornstein N, Csiba L, Vicaut E, Woo KS, Zannad F. Mannheim Intima-Media Thickness Consensus. on Behalf of the Advisory Board of the 3rd Watching the Risk Symposium 2004,13th European Stroke Conference, Mannheim, Germany, May 14, 2004. Cerebrovasc Dis. 2004;18(4):346-9.
55. Juo SH, Lin HF, **Rundek T,** Sabala EA, Boden-Albala B, Park M, Lan MY, Sacco RL. Genetic and environmental contributions to carotid intima-media thickness and obesity phenotypes in the Northern Manhattan Family Study. Stroke. 2004;35(10):2243-7. **PMCID: PMC1325223**
56. **Rundek T**, Elkind MS, Pittman J, Boden-Albala B, Martin S, Humphries SE, Hank Juo SH, Sacco RL. Carotid Intima-Media Thickness is Associated with Allelic Variants of Stromelysin-1, Interleukin-6 and Hepatic Lipase Genes: The Northern Manhattan Prospective Cohort Study. Stroke 2002, 333(5):1420-3. **PMCID: PMC2692936**
57. **Rundek T**, Sacco RL, Demarin V. Neuroprotection in Acute Stroke:Is there still hope? Acta Clin Croat. 2002;41:4-9.
58. Hartmann A, **Rundek T**, Mast H, Paik MC, Boden-Albala B, Mohr JP, Sacco RL. Mortality and causes of death after first ischemic stroke: The Northern Manhattan Stroke Study. Neurology 2001; 57 (11): 2000-5.
59. Sacco RL, DeRosa JT, Haley B.Levin B, Ordronneau P, Phillips SJ, **Rundek T**, Snipes RG, Thompson GLP. Glycine antagonist in neuroprotection in acute stroke. GAIN Americas: A randomized trial. JAMA 2001;285: 1719-28.
60. **Rundek T**, Mast H, Hartmann H, Boden-Albala B, Lennihan L, Lin IF, Paik MC, Sacco RL. Predictors of resource utilization after acute hospitalization: Northern Manhattan Stroke Study. Neurology 2000; 55: 1180-7.
61. **Rundek T**, DiTullio MR, Sciacca RS, Titova IV, Mohr JP, Homma S, Sacco RL. Association between large arch atheromas and cerebral microemboli in elderly stroke patients. Stroke 1999;30:2683-6.

C. RESEARCH SUPPORT

Ongoing Research Support

R01 NS 065114 (PI: Rundek) 07.01.10-06.3.15
NIH/NINDS
Novel Factors for Unexplained Phenotypes of Subclinical Carotid Atherosclerosis
This is a selective genotype study of the extreme phenotypes of subclinical atherosclerosis among individuals with a high burden of atherosclerosis and no risk factors and among those with a high burden of risk factors but no evidence of atherosclerosis

Genetic Determinants of Extreme Phenotypes of Subclinical Atherosclerosis
K24 NS 062737
NIH/NINDS
PI: T. Rundek 09.30.09-08.31.14
This is a mid career award to train young investigators in patient-oriented research, perform research on genetic factors of extreme phenotypes of subclinical atherosclerosis, and enhance career development in genetic epidemiology.

Aortic, cardiovascular disease and silent brain infarcts, Columbia University, NY
R01 NS 36286
NIH/NINDS
PI: M. Di Tullio; T.Rundek: Co-Investigator 7.01.05-06.30.10
The objective of this study was to investigate cardiac sources of silent brain infarcts and cerebral white matter disease.

Stroke Incidence and Risk Factors in a Tri-Ethnic Region
R37 NS 029993-11
NIH/NINDS
PI: R.L. Sacco; T. Rundek, Co-Investigator 02.01.03-01.31.15
The major goals of this project are to determine the effect of risk factors for stroke, MI, and vascular death, as well as evaluate predictors of cognitive impairment and the importance of subclinical MRI findings in a prospective cohort study of 3,300 persons from 3 race-ethnic groups from Northern Manhattan.

Family Study of Stroke Risk and Carotid Atherosclerosis
1 R01 NS 40807
NIH/NINDS
PI: R.L. Sacco; T. Rundek, Co-Investigator 05.01.02-09.30.11
The major goal of this study is to evaluate heritability and genetic linkage of new vascular risk factors (homocysteine, carotid intima-media thickness, carotid distensibility, brachial endothelial reactivity and left ventricular mass) among the families of high-risk Caribbean Hispanics.

Oral Infections, Carotid Atherosclerosis and Stroke (INVEST)
1 R01 DE 13094
NIH/NIDCR
PI: M. Desvarieux; T. Rundek, Co-Investigator 06.15.06-05.31.11
This cohort study will examine the effect of chronic periodontal disease and inflammation as a risk factor for stroke and carotid atheroma progression.

MESA (Multi-Ethnic Subclinical Atherosclerosis
NIH/NHLBI-HC
CU PI: S. Shea; T. Rundek, Collaborator 06.15.02-05.31.10
The objective of this large NIH contract is to examine traditional and novel risk factors and markers of subclinical atherosclerosis in a large sample of individuals from multi-ethnic communities.

PENDING: SPOTRIAS, D43

Prior Research Support

Genetic Determinants of Subclinical Carotid Disease
R01 NS 047655
NIH/NINDS
PI: T. Rundek 01.01.04-12.31.10.
This is a cross-sectional study evaluating potential candidate genes related to carotid IMT and distensibility in the Northern Manhattan Study cohort.

Primary Hyperparathyroidism: Non-Classical Manifestations
R01 DK 66329
NIH
PI: S. Silverberg; T. Rundek, Co-Investigator 7.01.05-06.30.10
The main objective of this study is to determine whether there is structural and functional evidence of increased vascular stiffness or cardiovascular calcification in patients with mild asymptomatic PHPT and to determine the reversibility of these manifestations after parathyroidectomy in a randomized controlled clinical trial.

A Multicenter, Randomized, Double-Blind Placebo-Controlled Study to test the Safety and Efficacy of Lipitor (atorvastatin) in Reducing the Progression of Carotid IMT in Early Childhood SLE", The Atherosclerosis Prevention in Pediatric Lupus Erythematosus (APPLE) Study
NIH/NIAMS BAA-02
PI: L.E. Schanberg, Duke; T.Rundek, Site Co-I 06.15.04-05.31.08
The objective of this study is to assess the efficacy of atorvastatin in reducing carotid IMT in children with systemic lupus erythomatosus.

Clopidogrel versus Aspirin Carotid Ultrasound Stroke Study (CASS)
Sanofi-Aventis/BM
PI: T. Rundek 7.01.05-12.30.08.
This is a 3-year single center clinical trial aimed to test the hypothesis that clopidogrel is superior in improving carotid artery wall properties over aspirin in the patients with non-disabling stroke from a multi-ethnic community.

STARR (The STudy of Atherosclerosis with Ramipril and Rosiglitazone)
Canadian Institutes of Health Research, Aventis Pharma, King Pharmaceuticals and GlaxoSmithKline
PI: Eva Lonn, Mcaster University, Hamilton, Canada
T. Rundek, CU Site PI 01.01.02-12.31.07
STARR is a multi-centre, international, randomized controlled clinical trial aimed to evaluate the effects of ramipril and of rosiglitazone on atheroscleorsis progression, as determined by B-mode carotid ultrasound. It is a substudy of DREAM (Diabetes REduction Assessment with Ramipril and Rosiglitazone Medication) trial.

Carotid Artery Distensibility and Risk of Stroke
The Gilbert Baum Memorial Grant and the American Institute of Ultrasound in Medicine Award
PI: T. Rundek 7.01.04-06.30.05
The objective of this case–control study was to determine whether impaired carotid distensibility assessed by ultrasound is associated with an increased risk of stroke. The specific aims of this study were to determine whether the stroke risk associated with carotid distensibility varies among different stroke types and different age, gender and race-ethnic groups at various levels of carotid intima-media thickness (IMT) and carotid plaque.

The Hazel K. Goddess Fund for Stroke Research in Women
The Hazel K. Goddess Fund
PI: T. Rundek 7.01.01-06.30.04
The major goals of this project was to determine the effects of structural and functional carotid artery wall properties on the risk of stroke, MI or death in a prospective cohort study of 360 postmenopausal women over age 55 from 3 race-ethnic groups from northern Manhattan.

The Effect of Atorvastatin on Carotid Plaque Morphology Assessed by Gray Scale Ultrasound Densitometry
Pfizer, Inc.
PI: T. Rundek 7.01.05-06.30.06
This was a 1-year single center study clinical trial aimed to assess the potential effect of atorvastatin on carotid artery plaque density within 30 days of treatment with a single dose of atorvastatin among individuals with hypercholesterolemia.

A Pilot Study to Evaluate Potential Screening Factors for Atherosclerosis in Survivors of Childhood and Young Adult Hodgkin's Disease
The Columbia Cancer Institute
PI: K. Kelly, Co-Investigator: T. Rundek 7.01.05-06.30.06
To main objective of this study was to obtain pilot data to evaluate the prevalence and severity of asymptomatic carotid artery disease in a cohort of survivors of childhood or young adult Hodgkin's disease who had remained in a continuous complete remission for at least 5 years after the completion of all therapy in comparison to their unaffected siblings.

The PACTS-HOPE Project: Premature Atherosclerosis and Cardiovascular Risk in Children: Carotid Ultrasound Sub-study
CDC
PI: E. Abrams, T.Rundek: Co-Investigator 7.01.05-06.30.06
The objective of this substudy was to examine the presence of subclinical atherosclerosis in HIV positive children and its associations with increased risk of CVD in children on the AZT medication.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Ralph Lewis Sacco	**Chairman and Professor of Neurology, Epidemiology, and Human Genetics**
eRA COMMONS USER NAME (credential, e.g., agency login) **SACCORL**	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Cornell University, College of Engineering	B.S. distinction	1975-79	BioElectrical Engineering
Boston University, School of Medicine	M.D. cum laude	1979-83	Medicine
Columbia University, School of Public Health	M.S.	1987-89	Epidemiology
Neurological Institute, Presbyterian Hospital	Residency	1984-87	Neurology
Columbia College of Physicians & Surgeons	Fellow	1987-89	Cerebrovascular Disease

B. Positions and Honors

1989-97 Asst Professor of Neurology & Public Health (Epidemiology) in the Sergievsky Center
1997-02 Assoc Professor of Neurology & Public Health (Epidemiology) in the Sergievsky Center (with tenure)
2003-07 Professor of Neurology & Epidemiology, Columbia University, College of Physicians and Surgeons, Mailman School of Public Health, and the Sergievsky Center (with tenure)
2007- Olemberg Family Chair in Neurological Disorders, Miller Professor of Neurology, Epidemiology and Human Genetics (with tenure) and Chairman of Neurology, Miller School of Medicine, University of Miami

Honors

1982	Alpha Omega Alpha	2001	Fellow of the American Heart Association
1998	American Neurological Association	2004	Fellow of the American Academy of Neurology
2006	AHA/ASA William Feinberg Award	2007	AHA Chairman's Award
2008	NINDS Jacob Javits Award in the Neurosciences	2008	American Association of Physicians

Other Professional Experience

1999-05 American Academy of Neurology - Clinical Research Subcommittee, Chair
1997-03 NINDS, Performance Safety & Monitoring Committee, VISP Trial
2004-06 NINDS Neurosciences Training Grant Review Group, Member
2002-03 Center for Scientific Review, EDC-3
2003-07 FDA, Peripheral and Central Nervous System Drug Advisory Panel
2005-08 AHA, National Board of Directors
2005-08 ASA, Chair Stroke Advisory Committee
2005-09 American Academy of Neurology, Board of Directors
2010-11 President, American Heart Association, National Board of Directors

C. Selected Peer-reviewed Publications

1. Sacco RL, Gan R, Boden-Albala B, Lin IF, Kargman DE, Hauser WA, Shea S, Paik M. Leisure-Time Physical Activity and Ischemic Stroke Risk: The Northern Manhattan Stroke Study. **Stroke** 1998;29:380-387 PMID: 9472878
2. Sacco RL, Boden-Albala B, Gan R, Kargman DE, Paik M, Shea S, Hauser WA, and the Northern Manhattan Stroke Study Collaborators. Stroke incidence among white, black and Hispanic residents of an urban community: the Northern Manhattan Stroke Study. **Am J Epidemiol** 1998;147:259-268 PMID: 9482500
3. Sacco RL, Elkind M, Boden-Albala B, Lin I-F, Kargman DE, Hauser WA, Shea S, Paik M. The protective effect of moderate alcohol consumption on ischemic stroke. **JAMA** 1999;281:53-60 PMID: 9892451
4. Sacco RL, Benson RT, Kargman DE, Boden-Albala B, Tuck C, Lin I-F, Cheng JF, Paik MC, Shea S, Berglund L.High-density lipoprotein cholesterol and ischemic stroke in the elderly. **JAMA** 2001;285:2729-35 PMID: 11386928
5. Sacco RL, Boden-Albala B, Abel G, Lin IF, Elkind M, Hauser WA, Paik MC, Shea S. Race-ethnic disparities in the impact of stroke risk factors: The Northern Manhattan Stroke Study. **Stroke** 2001;32:1725-1731 PMID: 11486097
6. Sacco RL, Anand K, Lee HS, Boden-Albala B, Stabler S, Allen R, Paik MC. Homocysteine and the Risk of Ischemic Stroke in a Triethnic Cohort. The Northern Manhattan Study. **Stroke** 2004; 35:2263-9 PMID: 15345803

7. Prabhakaran S, Wright CB, Yoshita M, Delapaz R, Brown T, Decarli C, Sacco RL. The prevalence and determinants of subclinical brain infarction. The Northern Manhattan Study. **Neurology** 2007:26; PMID: 17898325
8. Boden-Albala B, Sacco RL, Lee HS, Grahame-Clarke C, Rundek T, Elkind MV, Wright C, Giardina EG, DiTullio MR, Homma S, Paik MC. Metabolic syndrome and ischemic stroke risk. **Stroke** 2008;39:30-5. PMID: 18063821
9. Rundek T, Arif H, Boden-Albala B, Elkind MS, Paik MC, Sacco RL. Carotid plaque, a subclinical precursor of vascular events: the Northern Manhattan Study. **Neurology**. 2008 Apr 1;70(14):1200-7. PMID: 18354078
10. Sacco RL, Diener HC, Yusuf S, et al.; PRoFESS Study Group. Aspirin and extended-release dipyridamole versus clopidogrel for recurrent stroke. **N Engl J Med** 2008;359:1238-51. PMID: 18753638
11. Sacco RL, Blanton SH, Slifer S, Beecham A, Glover K, Gardener H, Wang L, Sabala E, Juo SH, Rundek T. Heritability and linkage analysis for carotid intima-media thickness: the family study of stroke risk and carotid atherosclerosis. **Stroke**. 2009 Jul;40(7):2307-12. Epub 2009 Jun 4. PubMed PMID:19498180
12. Wang L, Beecham A, Di Tullio MR, Slifer S, Blanton SH, Rundek T, Sacco RL. Novel quantitative trait locus is mapped to chromosome 12p11 for left ventricular mass in Dominican families: the Family Study of Stroke Risk and Carotid Atherosclerosis. **BMC Med Genet**. 2009;10:74. PubMed Central PMCID: PMC2724377
13. Willey JZ, Disla N, Moon YP, Paik MC, Sacco RL, Boden-Albala B, Elkind MS, Wright CB. Early depressed mood after stroke predicts long-term disability: the Northern Manhattan Stroke Study (NOMASS). **Stroke.** 2010 Sep;41(9):1896-900. Epub 2010 Jul 29. PubMed PMID: 20671256; PubMed Central PMCID: PMC2932858.
14. Dhamoon MS, Moon YP, Paik MC, Boden-Albala B, Rundek T, Sacco RL, Elkind MS. Quality of life declines after first ischemic stroke. The Northern Manhattan Study. **Neurology**. 2010 Jul 27;75(4):328-34. Epub 2010 Jun 23. PubMed PMID: 20574034; PubMed Central PMCID: PMC2918891.
15. Wang L, Di Tullio MR, Beecham A, Slifer S, Rundek T, Homma S, Blanton SH, Sacco RL. A comprehensive genetic study on left atrium size in Caribbean Hispanics identifies potential candidate genes in 17p10. **Circ Cardiovasc Genet**. 2010 Aug;3(4):386-92. Epub 2010 Jun 19. PMCID: PMC2923674

D. Research Support

Stroke Incidence and Risk Factors in a Tri-Ethnic Region
Role: PI; Agency: NIH/NINDS; Type: R37 (formerly 2R01) (NS 29993); Period: 01.01.93-03.31.15
Aims: To determine the effects of risk factors including subclinical carotid and brain disease on the risk of stroke, MI, and vascular death in a prospective cohort of 3299 stroke-free community subjects from Northern Manhattan.

Family Study of Stroke Risk and Carotid Atherosclerosis
Role: PI; Agency: NIH/NINDS; Type: 1R01 (NS 240807); Period: 05.01.02-08.30.11
Aims: The major goals of this project are to determine the genetic determinants of carotid IMT and plaque among high-risk Caribbean Hispanic families of the NOMAS.

Genetic Determinants of Subclinical Carotid Disease
Role: Co-I; PI: Tanja Rundek; Agency: NIH/NINDS; Type: R01 (NS 047655); Period: 01.01.04-12.31.10
Aims: This is a cross-sectional study evaluating potential candidate genes related to carotid IMT and distensibility in the Northern Manhattan Study cohort.

Novel Factors for Unexplained Phenotypes of Carotid Atherosclerosis
Role: Co-I; PI: TRundek/SBlanton; Agency: NIH/NINDS; Type: R01 (NS 065114); Period: 07.01.10-06.30.15
Aims: This is a genetic study to help uncover genetic factors related to unexplained extreme carotid phenotypes within the Northern Manhattan Study cohort.

A Primary Hyperparathyroidism - non-classical Manifestations
Role: Co-I; PI: Silverberg; Agency: NIH/NIDK; Type: R01 (DK 066329); Period: 4.15.05-03.31.11
Aims: This is a prospective study to evaluate the effects of hyperparathyroidism on carotid disease and other cardiovascular outcomes.

Mechanisms of Stroke in Intracranial Stenosis and Stenting (MoSISS)
Role: Co-I; PI: Romano; Agency: NIH/NINDS; Type: R01 (NS 069938); Period: 04.15.10-03.31.14
Aims: This is an ancillary study of SAMMPRIS to study the mechanisms that underlie ischemic stroke in stented and non-stented patients with intracranial atherosclerosis.

Oral Infections, Carotid Atherosclerosis and Stroke
Role: Co-PI; PI: Desvarieux; Agency: NIH/NIDCR; Type: 1R01 (DE 13094); Period: 07.01.00-12.31.10
Aims: To determine the effect of chronic periodontal disease and inflammation as a risk factor for stroke and carotid atheroma progression.

Aortic, Cardiovascular Disease and Silent Brain Infarcts
Role: Co-I; PI: Di Tullio; Agency: NIH/NINDS; Type: 1R01 (NS 36286); Period: 06.01.97-05.31.10
Aims: To determine whether aortic arch plaques and cardiovascular exposures are risk factors for silent infarcts and vascular outcomes within a prospective cohort study.

Subclinical Cardiovascular Disease Study: MESA Field Center

Role Adjudicator; Agency: NIH/NHLBI; Type: Contract (NHLBI-HC-98-08); Period:03.01.99 - 08.31.10
Aims: To identify subclinical predictors of atherosclerotic disease in a multi-center prospective cohort study.

Subclinical Cardiovascular Disease Study: MESA Air
Role: Adjudicator; Agency: NIH/NHLBI; Type: Subcontract (NHLBI-HC-83169701);Period: 04.01.07-02.14.10;
Aims: The prospective study of atherosclerosis, clinical cardiovascular disease and long term exposure to ambient particulate matter and other air pollutants in a multiethnic cohort.

Hispanic Community Health Study/Study on Latinos: Miami Field Center
Role: Co-I; PI: Schneiderman; Agency: NIH/NHLBI; Type: Contract; Period: 10.01.07-10.01.12
Aims: To determine the role of acculturation in the prevalence and development of disease, and to identify risk factors playing a protective or harmful role in Hispanics/Latinos.

Prior Research Support in last 3 years

New York Columbia Collaborative SPOTRIAS (Specialized Program on Translational Research in Acute Stroke)
Role: PI; Agency: NIH/NINDS; Type: P50 (NS 049060); Period: 09.30.04-05.31.09
Aims: The major goals of this program project are to perform three innovative acute stroke projects: (1) a dose escalation safety trial of high-dose statins in acute stroke; (2) determine the functional significance of contralateral fMRI activity in acute stroke; and (3) develop and test the efficacy of an innovative behavioral modification intervention to train people how to react if they are having stroke warning symptoms.

Inflammation and Infection as Risk Factors in Stroke
Role: Mentor; PI: Elkind; Agency: NIH/NINDS; Type: K23 (NS 42912); Period: 01.15.02-12.31.06
Aims: This K23 award is a nested case-control study to evaluate inflammation and other infection exposures as a risk factor for ischemic stroke in the Northern Manhattan Study.

Inflammation, Leukocyte activation and Stroke Risk
Role: Co-I; PI: M Elkind; Agency: AHA/Grant-In-Aid (0355596T); Period: 07.01.03-06.30.06
Aims: This is a study to evaluate inflammatory markers as risk factors for vascular outcomes within NOMAS.

Inflammatory and Infectious Burden and Risk of Stroke
Role: Co-I; PI: Elkind; Agency: NIH/NINDS; Type: R01 (NS 048134); Period: 03.01.04-02.28.09
Aims: This is a prospective analysis of inflammatory markers and infectious markers as risk factors for vascular outcomes within the Northern Manhattan Study cohort

Vascular predictors of cognitive impairment and decline in a tri-ethnic community
Role: Mentor; PI: Clinton Wright; Agency: NIH/NCRR; Type: K12 RR017648; Period: 08.01.03-07.31.06.
Aims: To identify vascular risk factors that contribute to cognitive abnormalities.

Familial Intracranial Aneurysm Study
Role: Co-I; PI: Broderick; Agency: NIH/NINDS; Type: R01 (NS 39512); Period: 07.01.02-06.30.07
Aims: This is a multicenter epidemiological family study to investigate the genetic determinants of familial intracranial aneurysms through linkage analysis.

Neuroepidemiology Training Program
Role: Co-PI; PI: Hauser; Agency: NIH/NINDS; Type: T32 (NS 07153); Period: 07.01.04-06.30.09
Aims: To train neurologists in epidemiology.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME: **Clinton Burnet Wright**	POSITION TITLE Scientific Director, Evelyn F. McKnight Brain Institute Associate Professor of Neurology
eRA COMMONS USER NAME: WRIGHTCL	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
George Washington University; Washington DC	B.A.	1990	Psychology
Columbia University College of P&S; New York, NY	M.D.	1997	Medicine
Columbia University, Mailman School of PH; New York, NY	M.S.	2003	Epidemiology

A. Positions and Honors.

Positions and Employment

1997-1998	Intern, Internal Medicine.
1998-2001	Resident, Neurology, New York Presbyterian Hospital; New York, NY
2001-2003	Fellowship in Cerebrovascular Disease, Columbia University College of Physicians and Surgeons, New York, NY
2001-2008	Assistant Attending in Neurology, New York Presbyterian Hospital, New York, NY
2003–2008	Assistant Professor of Neurology, Columbia University, New York, NY
2008-present	Adjunct Associate Professor of Neurology, Columbia University, New York, NY
2008-present	Associate Professor of Neurology and Epidemiology & Public Health, University of Miami, Miami, FL

Other Experience and Professional Memberships

1998-present	American Academy of Neurology
2001-present	American Heart Association, Council on Epidemiology and Prevention

B. Selected peer-reviewed publications (in chronological order).

1. Chen G, Manji HK, Hawver DB, **Wright CB**, Potter WZ. Chronic sodium valproate selectively decreases protein kinase C alpha and epsilon in vitro. *Journal of Neurochemistry*. 1994;63:2361-4. **PMID: 7964759**
2. Arnold LE, Stoff DM, Cook Jr E, Cohen DJ, Kruesi M, **Wright C**, Hattab J, Graham P, Zametkin A, Castellanos FX, McMahon W, Leckman JF. Ethics of Biological Psychiatric Research with Children and Adolescents. *Journal of the Academy of Child and Adolescent Psychiatry*. 1995;34:929-39. **PMID: 7649964**
3. Chen G, Pan B, Hawver DB, **Wright CB**, Potter WZ, Manji HK. Attenuation of cyclic AMP production by carbamazepine. *Journal of Neurochemistry*. 1996;67:2079-86. **PMID: 8863517**
4. Chen G, Manji HK, **Wright CB**, Hawver DB, Potter WZ. Effects of Valproic Acid on Beta-adrenergic Receptors, G-proteins, and Adenylyl Cyclase in Rat C6 Glioma Cells. *Neuropsychopharmacology*. 1996;15:271-80. **PMID: 8873110**
5. **Wright CB**, Lee HS, Paik M, Stabler SP, Allen RH, Sacco RL. Plasma homocysteine and cognition in a tri-ethnic community: the Northern Manhattan Study. *Neurology*. 2004;63:254-60. **PMCID: PMC1352321**
6. White H, Boden-Albala B, Wang C, Elkind MSV, Rundek T, **Wright CB**, Sacco RL. Ischemic Stroke Subtype Incidence among Whites, Blacks and Hispanics: The Northern Manhattan Study. *Circulation* 2005; 111:1327-1331. **PMID: 15769776**
7. Flint AC, Liberato B, Anziska A, Schantz-Dunn J, **Wright CB.** Meningovascular syphilis as a cause of basilar artery stenosis. *Neurology* 2005; 64:391-2. **PMID: 15668454**
8. Gerstner E, Liberato B, **Wright CB**. Bi-hemispheric anterior cerebral artery with drop attacks and limb shaking TIAs. *Neurology* 2005; 65:174. **PMID: 16009921**
9. **Wright CB**, Paik, Brown TR, Stabler SP, Allen RH, Sacco RL, Decarli C. Total Homocysteine is Associated with White Matter Hyperintensity Volume: the Northern Manhattan Study. *Stroke* 2005; 36:1207-1211. **PMCID: PMC1352322**

10. **Wright CB**, Sacco RL, Rundek TR, Delman JB, Rabbani, Elkind MSV. Interleukin-6 is associated with cognitive function: the Northern Manhattan Study. *J Stroke Cerebrovasc Dis* 2006; 15(1):34-38. **PMCID: PMC1382058**
11. Flint AC, Naley MC, **Wright CB**. Ataxic hemiparesis from strategic frontal white matter infarction with crossed cerebellar diaschisis. *Stroke* 2006; 37(1): e1-2. **PMCID: PMC1352323**
12. **Wright CB**, Vonsattel J-PG, Bell K, Honig LS. Dementia with Cerebrovascular Disease: A case study. *Sci. Aging Knowl. Environ* 2006, (10), dn1. [DOI: 10.1126/sageke.2006.10.dn1]. **PMID: 16807476**
13. Prabhakaran S, Khandji A, **Wright CB**. Extracranial internal carotid artery dissection with unusual gadolinium enhancement. *Neurology* 2006; 67(3):536-7. **PMID: 16894128**
14. Wright CB, Rundek T, Paik MC, Elkind MSV, Sacco RL. Alcohol intake, carotid plaque, and cognition: the Northern Manhattan Study. Stroke 2006; 37:1160-1164. **PMCID: PMC1447604**
15. **Wright CB**, Luo X, Paik MC, Sacco RL. A prospective study of alcohol consumption and cognition: the Northern Manhattan Study. *Neuroepidemiology* 2006; 27:201-7. **PMCID: PMC1756459**
16. Sommerville RB; Noble JM; Vonsattel JP; Delapaz R; **Wright CB**. Eosinophilic Vasculitis in an Isolated CNS Distribution. *Journal of Neurology Neurosurgery and Psychiatry* 2007; 78:85-88. **PMCID: PMC2117771**
17. **Wright CB**. Do poststroke MRI findings predict the type of a subsequent stroke? *Nature Clinical Practice Neurology* 2007; 3:20-21. **PMID: 17205070**
18. Gerard E, Frontera JA, **Wright CB**. Vasospasm and cerebral infarction following isolated intraventricular hemorrhage. Neurocritical Care 2007;DOI:10.1007/s12028-007-0057-1. **PMID: 17522787**
19. Khatri M, **Wright CB**, Nickolas TL, Paik MC, Sacco RL, DeCarli C. Chronic Kidney Disease is associated with White Matter Hyperintensity Volume: The Northern Manhattan Study (NOMAS). *Stroke* 2007;38:3121. **PMCID: PMC2948438**
20. Prabhakaran S, **Wright CB**, Yoshita M, Delapaz R, Brown T, Decarli C, Sacco RL. The prevalence and determinants of subclinical brain infarction: The Northern Manhattan Study. *Neurology* 2007;doi:10.1212/01.wnl.0000277521.66947.e5. **PMCID: PMC2714050**
21. **Wright CB**, Festa J, Paik MC, Schmiedigen AP, Brown TR, Yoshita M, DeCarli C, Sacco RL, Stern Y. White Matter Hyperintensities and Subclinical Infarction: Associations with Psychomotor Speed and Cognitive Flexibility. *Stroke* 2008;39:800-805. **PMCID: PMC2267752**
22. Boden-Albala B, Sacco RL, Lee H-S, Grahame-Clarke C, Rundek T, Elkind MV, **Wright CB**, Giardina EV, DiTullio MR, Homma S, Paik MC. Metabolic Syndrome and Ischemic Stroke Risk: Northern Manhattan Study. *Stroke* 2008;39:30-35. **PMCID: PMC2677015**
23. Boden-Albala B, Cammack S, Chong J, Wang C, **Wright CB**, Rundek T, Elkind MSV, Paik MC, Sacco RL. Diabetes, Fasting Glucose Levels, and Risk of Ischemic Stroke and Vascular Events: Findings from the Northern Manhattan Study (NOMAS). *Diabetes Care* 2008;31:1-6. **PMID: 18339972**
24. Asllani I, Borogovac A, **Wright CB**, Sacco RL, Brown TR, Zarahn E. An investigation of statistical power for continuous arterial spin labeling imaging at 1.5 T. *NeuroImage* 2008;39:1246-56. **PMCID: PMC2665307**
25. Noble, James M, Borrell, Luisa N, Papapanou, Panos N, Elkind, Mitchell S.V, Scarmeas, Nikolaos **Wright, Clinton B.** Periodontitis is associated with cognitive impairment among older adults: analysis of NHANES-III. Journal of Neurology, Neurosurgery and Psychiatry *J. Neurol. Neurosurg. Psychiatry* published online 5 May 2009. **PMID: 19419981**
26. Siedlecki, Karen L., Stern, Yaakov, Reuben, Aaron, Sacco, Ralph L, Elkind, Mitchell S.V., **Wright, CB**, Construct Validity of Cognitive Reserve in a Multi-Ethnic Cohort: the Northern Manhattan Study. The Journal of the International Neuropsychological Society 2009 Jul;15(4):558-69.
27. Emily LR, Lavine SD, Festa JR, Connolly ES, **Wright CB,** Lazar RM. Acute Confusional Syndrome from a Dural Arteriovenous Fistula. Neurosurgery 2009 Jul;65(1):E208-E209. **PMID: 19574802**
28. **Wright CB**, Moon Y, Paik MC, Brown TR, Rabbani L, Yoshita M, Decarli C, Sacco R, Elkind MS. Inflammatory Biomarkers of Vascular Risk as Correlates of Leukoariosis. Stroke. 2009 Nov;40(11):3466-71. **PMID: 19696417**
29. Khatri M, Nickolas T, Moon Y, Paik MC, Rundek T, Elkind MSV, Sacco RL, **Wright CB.** Chronic Kidney Disease is Associated with Cognitive Decline: The Northern Manhattan Study. Journal of the American Society of Nephrology 2009 Sep; doi:10.1681/ASN.2008101090 [Epub ahead of print] **PMCID: PMC2948438**
30. Rundek T, Gardener H, Xu Q, Goldberg R, **Wright CB,** Boden- Albala B, Disla N, Paik M, Elkind MSV, Sacco RL Insulin Resistance and Risk of Ischemic Stroke among Non-Diabetic Individuals from the Northern Manhattan Study. Arch Neurol. 2010 Oct;67(10):1195-200.. **PMCID: PMC2954671**
31. Warsch JR, **Wright CB**. Stroke: hyperlipidemia and cerebral small-vessel disease. Nat Rev Neurol. 2010 Jun; 6(6):307-8. **PMID: 20531432**
32. Willey JZ, Disla N, Moon YP, Paik MC, Sacco RL, Boden-Albala B, Elkind MS, **Wright CB**. Early depressed mood after stroke predicts long-term disability: the Northern Manhattan Stroke Study (NOMASS). Stroke. 2010 Sep;41(9):1896-900. **PMCID: PMC2932858 [Available on 2011/9/1]**

33. **Wright CB**, Sacco RL. Cardiac index as a correlate of brain volume: separating the wheat of normal aging from the chaff of vascular cognitive disorders. Circulation. 2010 Aug 17;122(7):676-8. Epub 2010 Aug 2. No abstract **available. PMID: 20679545**
34. Rundek T, Gardener H, Xu Q, Goldberg RB, Wright CB, Boden-Albala B, Disla N, Paik MC, Elkind MS, Sacco RL. Insulin resistance and risk of ischemic stroke among nondiabetic individuals from the northern Manhattan study. Arch Neurol. 2010 Oct;67(10):1195-200. **PMCID: PMC2954671**
35. Dong C, Beecham A, Slifer S, Wang L, Blanton SH, Wright CB, Rundek T, Sacco RL. Genomewide linkage and peakwide association analyses of carotid plaque in Caribbean Hispanics. Stroke. 2010 Dec;41(12):2750-6. Epub 2010 Oct 21. **PMCID: PMC3004531**
36. Warsch JR, Wright CB. The aging mind: vascular health in normal cognitive aging. J Am Geriatr Soc. 2010 Oct;58 Suppl 2:S319-24. doi: 10.1111/j.1532-5415.2010.02983.x. Review. **PMID: 21029061**
37. Wright CB, Sacco RL. Small vessel stroke and white matter lesions: peas in a pod, or horses of a different color? Neurology. 2010 Nov 9;75(19):1664-5. No abstract available. **PMID: 21060090**
38. Gutierrez J, Sacco RL, Wright CB. Dolichoectasia-an evolving arterial disease. Nat Rev Neurol. 2011 Jan;7(1):41-50. **PMID: 21221115 [PubMed - in process]**

Abstracts

1. **Wright CB**, Scarmeas N, Perera GM, Lazar RM, Fitzimmons B-F M, Labovitz D, Stapf C, Benson R, Robinson JV, Marshall RS. Cognitive Function Measures Added to the NIH Stroke Scale Improves Correlation with Acute Stroke Volume. *Neurology* 56, April 2001 (Suppl 3): A436.
2. **Wright CB**, Rundek T, Pittman JG, Boden-Albala B, Kaplan ED, Sacco RL. A Cross-sectional Analysis of Vascular Risk Factors and Cognitive Status in a Multiethnic Elderly Population. *Neurology* 58, April 2002 (Suppl 3): 113.
3. **Wright CB**, Elkind MSV, Lee H-S, Sacco RL. Interleukin 6 is Associated with Cognitive Impairment in the Northern Manhattan Study (NOMAS). Presented on 29 August 2003 at the International Society for Vascular Behavioral and Cognitive Disorders (VAS-COG) conference in Goteburg Sweden.
4. **Wright CB**, Lee H-S, Boden-Albala B, Paik M, Sacco RL. Factors associated with Decreased Cognition in a Multiethnic Cohort: The Northern Manhattan Study (NOMAS). *Neurology* March 2003 (Suppl 1):A53.
5. **Wright CB,** Rundek T, Huang S, Lee H-S, Boden-Albala B, Sacco RL. Homocysteine is associated with cognitive impairment: the Nothern Manhattan Study. *Stroke* January 2003; 34(1): 293.
6. Rundek T, Sciacca R, Perez-Apaga N, Juo S-HH, **Wright CB**, Elkind MS, Boden-Albala B, Rodriguez CJ, Di Tullio MR, Homma S, Sacco RL. Apolipoprotein E (APOE) Polymorphism and Carotid Atherosclerosis: The Northern Manhattan Study. *Stroke* January 2003; 34(1): 91.
7. **Wright CB**, Lee H-S, Boden-Albala B, Chong JY, Sacco RL. Depressed Mood Predicts Mortality and Disability 6 and 12 Months Post-Stroke: the Northern Manhattan Study. *Stroke*. 2004;35:321.
8. **Wright CB**, Stern Y, Sacco RL, Decarli C. Motor performance is associated with white matter hyperintensity volume: the Northern Manhattan Study. Presented at the *International Society for Vascular Behavioral and Cognitive Disorders (VAS-COG)* conference on 12 June 2005 in Florence, Italy.
9. **Wright CB**, Decarli C, Paik MC, Stabler SP, Allen RH, Sacco RL. Elevated Homocysteine is Associated with White Matter Disease: the Northern Manhattan Study. *Stroke* 2005;36(2):501.
10. **Wright CB**, Guzman J, Stern Y, Sacco RL, DeCarli C. Delayed Memory and Motor Function are Associated with White Matter Hyperintensities. *Stroke* 2006;37;619-646.
11. Birnbaum L, **Wright CB**, Rundek T, Huang L, Li L, Yoshita M, DeCarli C, Sacco R. Carotid Intima-media Thickness is Associated with Subclinical Cerebral Infarcts: The Northern Manhattan Study. *Stroke* 2007;38:453.
12. **Wright CB**, Sacco RL, Yoshita M, Li L, Cordonnier C, DeCarli C. Brain microbleeds in a community-based sample: the Northern Manhattan Study. *Journal of the Neurological Sciences* (in press).
13. **Wright CB**, Sacco RL, Paik MC, Stern Y. Education and physical activity are associated with less cognitive decline. *Journal of the Neurological Sciences* (in press).
14. **Wright CB**, Sacco RL, Yoshita M, DeCarli C, Stern Y. Subclinical Infarct Location Determines Performance on a List Learning Task. Stroke 2008;39:682.
15. Evensen LA, Doyle M, Perez T, Moats HL, **Wright CB**, Stillman J, Sacco RL, Klein CD, Boden-Albala B. Stroke In The Young And Social Resources: The Swift Study. Stroke 2008;39:627.
16. **Wright CB**, Brickman AM, Doyle M, Perez T, Stern Y, Boden-Albala B. Cognitive Function in Stroke and TIA patients is Associated with Health Knowledge and Competence. International Stroke Conference 2008, February 20-22, New Orleans, LA.
17. **Wright CB**, Moon Y, Santiago M, Rabbani LE, Sacco R, Elkind M. Interleukin 6 Is Associated with Cognitive Decline: The Northern Manhattan Study. Neurology 2008;70:A399.

18. Noble J, Borrell LN, Papapanou PN, Elkind M, Scarmeas N, **Wright CB**. Association of the Periodontitis Pathogen Porphyromonas gingivalis with Poor Memory: Analysis of the Third National Health and Nutrition Examination Survey (NHANES-III). Neurology 2008;70:A191.
19. Marcus J; Gardener H, Yoshita, M, Guzman J, Elkind MSV, Sacco RL., DeCarli C, **Wright CB**. Diastolic and not systolic blood pressure is associated with subclinical cerebrovascular damage: the Northern Manhattan Study. Presented at the American Academy of Neurology (AAN) for the annual meeting in April 2009, Seattle, WA
20. Loring J, Yoshita M, Marquez C, Elkind MSV, Sacco RL, DeCarli C, **Wright CB**. White Matter Hyperintensity Volume is Associated with Depressive Symptoms: the Northern Manhattan Study. Poster presented at the 134th Annual Meeting for the American Neurological Association (ANA), Baltimore, Maryland in October, 2009, and the 24th Annual National MD/PhD Conference in June, 2009.
21. Gardener H, scarmeas N, Gu Y, Disla N, Elkind, MSV, Sacco, RL Boden- Albala B, **Wright CB.** Mediterranean Diet and Vascular Events: The Northern Manhattan Study. Poster presented at the 134th American Neurological Association (ANA), Baltimore, Maryland, 11-14 October, 2009
22. **Wright CB**, Gardener H, Yoshita M, Santiago M, Rundek T, Elkind MSV, Sacco RL, Boden-Albala B, DeCarli C, Scarmeas N. Adherence to a Mediterranean Diet is inversely associated with White matter Hyperintensity Volume: The Northern Manhattan Study at the 6th International Congress of Vascular Dementia, Barcelona, Spain 19-22 November, 2009
23. Hudson BI, Moon YP, Kalea AZ, Khatri M, Marquez C, Schmidt AM, Paik MC, Sacco RL, DeCarli C, **Wright CB**, Elkind MSV. Serum levels of soluble Receptor for Advanced Glycation End-products are associated with subclinical cerebrovascular disease among Hispanics and blacks. 62nd Annual meeting of the American Academy of Neurology, Toronto, Canada. (In Press)

C. Research Support

Ongoing Research Support

1K02NS059729-01A1 (Wright) 09/01/2008 - 08/31/2013
NIH/NINDS
Vascular Risk and Cognition in a Multi-ethnic Cohort
The purpose of this grant is to examine vascular risk factors for cognitive dysfunction in a stroke-free multi-ethnic sample. Aims will focus on identification of traditional and novel vascular risk factors for cognitive dysfunction as well as the role of brain imaging markers of vascular damage.

AHA 0735387N (Wright) 07/01/2008- 06/30/2011
AHA
Vascular Risk and Cognition in a Tri- Ethnic Community
The purpose of this grant is to examine vascular risk factors as correlates of cognitive dysfunction in a stroke-free multi-ethnic sample. Aims will focus on the role of both traditional and novel vascular risk factors.

R37 NS029993 Sacco (PI) 01/07/1993 - 03/31/2015
NIH/NINDS: Subcontract to Columbia University
Stroke Incidence and Risk Factors in a Tri- Ethnic Region
This prospective cohort study (Northern Manhattan Study, NOMAS) investigates risk factors for stroke and other vascular outcomes in a multi-ethnic, urban population. In addition, the study seeks to understand the relationships between these risks factors and cognition and MRI-defined cerebrovascular disease.
Role: Co-investigator

XZ003 (Wright and Crocco) 07/01/2010 – 6/30/2011
State of Florida, Division of Elder Affairs
University of Miami Memory Disorder Clinic
The University of Miami Memory Disorder Clinic (UM-MDC) provides comprehensive evaluations to adults presenting with memory loss and/or other cognitive dysfunction. The UM-MDC also is responsible for caregiver education and support as well as public education and outreach programs.

Pending Research Support

1R01AG037728-01 (Wright) 07/01/2010- 06/30/2015
NIH/NINDS
Imaging markers of functional performance and age-related cognitive changes
This project uses structural, functional, and metabolic brain imaging measurements to understand the factors underlying individual variability in performance on technology-based everyday tasks.

Completed Research Support

NS 049060-03 Marshall (PI) 09/30/2004 - 07/14/2008
NIH/NINDS
New York Columbia Collaborative Specialized Program of Translational Research in Acute Stroke (SPOTRIAS: Project 1)
The major goals of this program project are to perform three innovative acute stroke projects: (1) a dose escalation safety trial of high-dose statins in acute stroke; (2) determine the functional significance of contralateral fMRI activity in acute stroke; and (3) develop and test the efficacy of an innovative behavioral modification intervention to train people how to react if they are having stroke warning symptoms.

NS 049060-03 Marshall (PI) 09/30/2004 - 07/14/2008
NIH/NINDS
New York Columbia Collaborative Specialized Program of Translational Research in Acute Stroke (SPOTRIAS: Project 3)
The major goals of this program project are to perform three innovative acute stroke projects: (1) a dose escalation safety trial of high-dose statins in acute stroke; (2) determine the functional significance of contralateral fMRI activity in acute stroke; and (3) develop and test the efficacy of an innovative behavioral modification intervention to train people how to react if they are having stroke warning symptoms.

NS 049060-03 Marshall (PI) 09/30/2004 - 07/14/2008
NIH/NINDS
New York Columbia Collaborative Specialized Program of Translational Research in Acute Stroke (SPOTRIAS: Core C)
The major goals of this program project are to perform three innovative acute stroke projects: (1) a dose escalation safety trial of high-dose statins in acute stroke; (2) determine the functional significance of contralateral fMRI activity in acute stroke; and (3) develop and test the efficacy of an innovative behavioral modification intervention to train people how to react if they are having stroke warning symptoms.

Collaborators

Antonio Barrientos, Ph.D.

Elizabeth Crocco, M.D.

Sara Czaja, Ph.D.

Kunjan R. Dave, Ph.D.

Hannah Gardener, Ph.D.

Carlos Moraes, Ph.D.

Miguel Perez-Pinzon, Ph.D.

BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
BARRIENTOS, Antoni	**Associate Professor**
eRA COMMONS USER NAME	
abarrientos	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Univ. of Barcelona. Teachers' School. SPAIN	B.S.	1981-1984	Science Education
Univ. of Barcelona. School of Biology. SPAIN	B.S.	1986-1992	Fundamental Biology
Univ. of Barcelona. School of Medicine. SPAIN	Ph.D.	1993-1997	Mitochondrial Genetics and Biochemistry
Uni. of Miami. School of Medicine. FL. USA	Post-doctoral fellow	1997-1999	Mitochondrial Genetics and Biochemistry
Columbia University. New York. NY. USA	Post-doctoral fellow	1999-2000	Yeast mitochondrial Genetics and Biochemistry

A. Positions and Honors.

Positions:

1985-1992. Permanent position as Teacher of Sciences in Secondary Public Schools. Barcelona. SPAIN.
2000-2003. Associate Research Scientist. Dept Biological Sciences. Columbia University (New York, NY).
2003-2007. Tenure-earning track Assistant Professor. Department of Neurology. The John Macdonald Foundation. Center for Medical Genetics. University of Miami (Miami. FL)
2005-2007. Tenure-earning track Assistant Professor. Department of Biochemistry and Molecular Biology. University of Miami (Miami. FL)
June 2007 – June 2009. Tenure-earning track Associate Professor. Department of Neurology and Department of Biochemistry & Molecular Biology. University of Miami (Miami. FL)
June 2009 until present. Tenured Associate Professor. Department of Neurology and Department of Biochemistry & Molecular Biology. University of Miami (Miami. FL)

Honors:

1993-1996. Pre-Doctoral Scholarship from the Spanish Government: Education of University' Professors.
1997-1999. Post-Doctoral Scholarship from the Spanish Government: Program for Research Profs. Abroad.
2003-2004. Selected candidate to represent the University of Miami for the Pew Award in Biomedical Sciences.
2004-2005. Selected candidate to represent the University of Miami for the Ellison Foundation award in Aging Research.

Editorial Responsibilities:

Ad hoc reviewer for: Cell Metabolism, Nature Genetics, Journal of Biological Chemistry, Journal of Cell Science, Human Molecular Genetics, Molecular Biology of the Cell, Journal of Molecular Biology, Trends Mol Med, Mitochondrion, Antioxidants and Redox Signaling, Biochemical Journal, FEBS Letters, Aging: clinical and experimental Research, Genetics in Medicine, Annals of Neurology and Neurology.

Advisory panels:

Federal Agencies

- Stage 1 reviewer for The Fellowships ZRG1 **F05-Cell Biology and Development** study section (NIH) (since 2010)
- Stage 1 reviewer for Recovery Act RC1 (2009) and RC4 (2010) applications (NIH)

Reviewer of research grants from:

- Muscular Dystrophy Association (MDA) (*ad hoc* reviewer since 2008)
- Italian Telethon (*ad hoc* reviewer since 2006)
- The British Medical Research Council (MRC) (*ad hoc* reviewer since 2008)

- The Spanish National Evaluation and Foresight Agency (ANEP) from the Spanish Government Ministry of Education and Science -Secretary for Universities and Research (permanent reviewer since 2004).

B. Selected peer-reviewed Publications (Selected from a total of **63 papers** and **11 book chapters**)

1- Horn D., Zhou W, Trevisson E., Al-Ali H., Harris T.K., Salviati L., and Barrientos A. (2010) The conserved mitochondrial twin CX_9C protein Cmc2 is a Cmc1 homologue essential for cytochrome *c* oxidase biogenesis. *J. Biol. Chem.* 285:15088-99. http://www.jbc.org/content/early/2010/03/10/jbc.M110.104786.long

2- Fontanesi F., Soto I.C., Horn D. and Barrientos A. (2009) Mss51 and Ssc1 facilitate translational regulation of cytochrome *c* oxidase biogenesis. *Mol Cell Biol.* 30: 245-259. PMCID2798308

3- Soto I.C., Fontanesi F., Valledor M., Horn D., Singh R. and Barrientos A. (2009) Synthesis of cytochrome *c* oxidase subunit 1 is translationally downregulated in the absence of functional F_1F_0-ATP synthase. *Biochim. Biophys. Acta (Mol. Cell. Res.)* 1793:1776-86. PMCID2764804

4- Ocampo A., Zambrano A. and Barrientos A. (2009) Suppression of polyglutamine-induced cytotoxicity in Saccharomyces cerevisiae by enhancement of mitochondrial biogenesis. *FASEB J.* 24(5):1431-41 PMCID in progress.

5- Soto I.C., Fontanesi F., Valledor M., Horn D., Singh R. and Barrientos A. (2009) Synthesis of cytochrome *c* oxidase subunit 1 is translationally down-regulated in the absence of functional F_1F_0-ATP synthase. *Biochim. Biophys. Acta (Mol. Cell. Res.)* 1793:1776-86

6- Barrientos A., Gouget K., Horn D., Soto I.C. and Fontanesi F. (2009) Suppression mechanisms of COX assembly defects in yeast and human: Insights into the COX assembly process. *Biochim. Biophys. Acta. Biochim. Biophys. Acta. (Mol. Cell. Res.)* 1793:97-107. PMCID2644423

7- Fontanesi F., Jin C., Tzagoloff A., and Barrientos A. (2008) Transcriptional Activators HAP/NF-Y Rescue a Cytochrome *c* Oxidase Defect in Yeast and Human Cells. *Hum Mol Genet.* 17: 775-788. http://hmg.oxfordjournals.org/cgi/content/full/17/6/775

8- Ocampo A. and Barrientos A. (2008) From the bakery to the brain business: developing inducible yeast models of human neurodegenerative disorders. Biotechniques 45(4):Pvii-xiv)

9- Horn D. and Barrientos A. (2008) Mitochondrial copper metabolism and delivery to cytochrome *c* oxidase. *IUBMB Life*. 60:421-9 PMCID2864105

10- Horn D., Al-Ali H., and Barrientos A. (2008) Cmc1p is a conserved mitochondrial twin Cx_9C protein involved in cytochrome *c* oxidase biogenesis. *Mol. Cell. Biol.* 28:4354-64. PMCID2447134

11- Fontanesi F., Soto I.C. and Barrientos A. (2008) Cytochrome *c* oxidase biogenesis: new levels of regulation. *IUBMB Life*. 60:557-68

12- Dave K.R., DeFazio R.A., Raval A.P., Torraco A., Saul I., Barrientos A. and Perez-Pinzon M.A. (2008) Ischemic preconditioning targets the respiration of synaptic mitochondria *via* protein kinase *c* Epsilon. *J. Neurosc.* 28: 4172-4182

13- Wiley D.J., Catanuto P., Fontanesi F., Rios C., Sanchez N., Barrientos A., and Verde F (2008) Bot1p is required for mitochondrial translation, respiratory function and normal cell morphology in the fission yeast *Schizosaccharomyces pombe*. *Eukaryotic Cell*, 7: 619-29

14- Zambrano A, Fontanesi F, Solans A, de Oliveira RL, Fox TD, Tzagoloff A, Barrientos A (2007) Aberrant translation of cytochrome *c* oxidase subunit 1 mRNA species in the absence of Mss51p in the yeast *Saccharomyces cerevisiae*. *Mol Biol Cell.* 18: 523-535. PMCID1783774

15- Fontanesi F., Soto I.C., Horn D., and Barrientos A. (2006) Assembly of mitochondrial cytochrome *c* oxidase, a complicated and highly regulated cellular process. *Am. J. Physiol. – Cell Physiol.*, 291(6):C1129-47. http://ajpcell.physiology.org/cgi/content/full/291/6/C1129

16- Fontanesi F., Soto I.C., Horn D., and Barrientos A. Assembly of mitochondrial cytochrome *c* oxidase, a complicated and highly regulated cellular process. *Am. J. Physiol. – Cell Physiol.*, 291(6):C1129-47. (2006)

17- Solans A., Zambrano A., Rodriguez M., and Barrientos A. (2006) Cytotoxicity of a mutant huntingtin fragment in yeast involves early alterations in mitochondrial OXPHOS complex II and III. *Hum. Mol. Genet.*, 15(20):3063-81. http://hmg.oxfordjournals.org/content/15/20/3063.long

18- Barrientos A., Zambrano A., and Tzagoloff A. (2004) Mss51p and Cox14p jointly regulate mitochondrial Cox1p expression in *Saccharomyces cerevisiae*. *EMBO J.* 23: 3472-3482. PMCID: PMC516630

19- Barrientos A. (2003) Yeast models of human mitochondrial diseases. *IUBMB Life*. 55:83-95.

20- Barrientos A., Korr D., Barwell K.J., Christian Sjulsen C., Gajewski C.D., Manfredi G., Sharon Ackerman S, and Tzagoloff A (2003) *MTG1* codes for a conserved protein required for mitochondrial translation. *Mol Biol Cell* 14: 2292-2302. PMCID: PMC194879

21- Barrientos A., Korr D., and Tzagoloff A. (2002) Mitochondrial cytochrome *c* oxidase assembly: Shy1p is necessary for full expression of subunit 1 in the yeast model of Leigh's syndrome. *EMBO J.* 21: 43-52. PMCID: PMC125806

Book chapters:

1- Horn D., Fontanesi F., and Barrientos, A. (2009) Cofactor insertion into mitochondrial cytochrome c oxidase and human disease: Insight from yeast models. In *Yeast as a Model for Human Disease*. Chapter 3. Pg: 41-61. Witt S.N. ed. Transworld Research Network. Trivandrum. India

2- Barrientos, A., Fontanesi, F. and Díaz, F. (2009) Evaluation of the Mitochondrial Respiratory Chain and Oxidative Phosphorylation System using Polarography and Spectrophotometric Enzyme Assays. *Curr Protoc Hum Genet.* Chapter 19: Unit 19.3

3- Fontanesi, F., Diaz, F. and Barrientos, A. (2009) Evaluation of the Mitochondrial Respiratory Chain and Oxidative Phosphorylation System Using Yeast Models of OXPHOS Deficiencies. *Curr Protoc Hum Genet.* Chapter 19: Unit 19.5

4- Horn D., Fontanesi F., and Barrientos A. (2008) Exploring protein-protein interactions involving newly synthesized mitochondrial DNA encoded proteins. *Methods in Molecular Biology: Membrane Trafficking.* Vol. 457. Chapter 9. Pg. 125-139. Ales Vancura, ed. Humana Press

5- Gouget K., Verde F. and Barrientos, A. (2008) *In Vivo* Labeling and Analysis of Mitochondrial Translation Products in Budding and in Fission yeasts. *Methods in Molecular Biology: Membrane Trafficking.* Vol. 457. Chapter 8. Pg. 113-124. Ales Vancura, ed. Humana Press

C. Research Support

Ongoing Research Support

1-2-2006 / 1-31-2011. RO1 grant from NIH (NIH # R01GM071775). Research project: "*Cytochrome c oxidase assembly in health and disease*". We use the yeast *Saccharomyces cerevisiae* as a model to study COX assembly in wild type strains and in others carrying mutations in evolutionary conserved COX assembly factors, relevant for human mitochondrial diseases. **PI:** Antoni Barrientos.

1-9-2009 / 1-31-2011. Competitive ARRA supplement NIGMS 3 R01 GM071775-04S1. Research project: "*Cytochrome c oxidase assembly in health and disease*". We will characterize the function of ZMNYD17, the human homologue of yeast Mss51p, a *COX1* mRNA specific translational activator. **PI**: Antoni Barrientos.

2-1-2010 / 1-31-2012. Research Challenge grant form the Florida Department of Health / James & Esther King Biomedical Research Program. "*Slowing degenerative processes by bolstering cellular bioenergetics*"; **PI.:** Antoni Barrientos, **PI**: C. T. Moraes (multiple PI grant). We will characterize the mechanism(s) by which the NF-Y transcription complex and the PGC-1 family of transcription factor co-activators regulate cellular bioenergetics in mammalian cells and explore its use as a genetic target to suppress mitochondrial defects and degenerative processes in mammalian cell culture and mouse models of mitochondrial encephalomyopathies.

Completed Research Support

2000-2003. Development Grant from the Muscular Dystrophy Association. Research project: "Function of Shy1p, the yeast homolog of Surf1p, responsible for Leigh's syndrome". **PI**: Antoni Barrientos. Mentor: Alexander Tzagoloff.

2003-2004. Research Grant from the Muscular Dystrophy Association. Research project: "*Cytochrome c oxidase assembly in health and disease*". **PI**: Antoni Barrientos.

2004-2005. Research Grant from the Glaser Foundation. Research project: "*Mitochondrial Physiology in a Yeast Model of Huntington's Disease*". **PI**: Antoni Barrientos.

2004-2007. Research Grant from the Muscular Dystrophy Association (MDA # 3844). *"Role of Evolutionary Conserved Cytochrome c Oxidase Assembly Factors"*. **PI**: Antoni Barrientos.

2006-2010. NIH – RO1 Research grant NS054147. Research project: "*Mitochondria and Cerebral Ischemia: intracellular signaling*". **PI**: Perez-Pinzon, Miguel; **Co-Investigator-** Antoni Barrientos.

2008-2009. Research Grant from the Glaser Foundation. Research project: "*Searching for suppressors of polyglutamine-induced mitochondrial and cellular toxicities in yeast*". **PI**: Antoni Barrientos.

2007-2010. Research Grant from the Muscular Dystrophy Association (MDA). *"Understanding the molecular basis of Leigh's syndrome associated to cytochrome c oxidase deficiency*". **PI**: Antoni Barrientos.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Elizabeth A. Crocco, M.D.	Clinical Assistant Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Douglas College, Rutgers University, NJ	B.S.	1989	Biology
UMDNJ-Robert Wood Johnson Medical School, Piscataway, NJ	M.D.	1993	Medicine

A. Positions and Honors.

Positions and Employment

1993-1997 Residency in Psychiatry, Mount. Sinai Medical Center, New York, N.Y

1993-1998

1996-1997 Administrative Chief Resident, Mount Sinai Medical Center, New York, N.Y.

1997-1998 Chief Fellow, Geriatric Psychiatry, Jackson Memorial Hospital, Mimai, FL.

1998-2006 Clinical Director of Psychiatry, Wien Center for Memory Disorder, Mt. Sinai Medical Center, Miami Beach, FL.

1998-present Clinical Assistant Professor, Department of Psychiatry and Behavioral Sciences, University of Miami Miller School of Medicine, Miami, FL.

2001-present Director, Geriatric Psychiatry Training Program, Jackson Memorial Hospital, Department of Psychiatry and Behavioral Sciences, Miami, FL.

2001-2006 Clinical Director of Consultation-Liaison Psychiatry, Mt. Sinai Medical Center, Miami Beach, FL.

2000-2006 Medical Director, Mount Sinai Medical Center Geriatric Psychiatry Inpatient Unit, Miami, FL

2006-present Medical Director, Geriatric Medical/Psychiatry Inpatient Unit, Jackson Memorial Hospital, Miami, Fl.

4/2010-present Director, Memory Disorder Center, Department of Psychiatry and Behavioral Sciences, Miller School of Medicine at University of Miami, FL

12/2009-present Division Chief, Geriatric Psychiatry, Department of Psychiatry and Behavioral Sciences, Miller School of Medicine at University of Miami, Miami, FL

Professional Memberships

Florida Psychiatric Society
American Psychiatric Association
American Association of Geriatric Psychiatry

Honors

University of Miami/Miller School of Medicine Faculty Citizenship Award, Miami, Fl 2010.

Nancy C.A. Roeske, M.D., Certificate of Recognition for Excellence in Medical Student Education, American Psychiatric Association, 2010.

Geriatric Psychiatry Training Program Teacher of the Year Award, JMH – 2007, 2008

Ralph Kaufman Memorial Award for most outstanding resident, Mt. Sinai Medical Center, NYC.

B. Selected peer-reviewed publications (in chronological order).

Crocco EA, Castro, K, Loewenstein D. How late-life depression affects cognition: neural mechanisms. *Current Psychiatric Reports*. 2010;12(1): 34-38.

Ownby RL, Hertzog C, Crocco E, Duara R. Factors related to medication adherence in memory disorder clinic patients. *Aging and Mental Health.* 2006;10(4): 378-385.

Ownby RL, Crocco E, Acevedo A, John V, Loewenstein D. Depression and risk for Alzheimer's disease: systematic review, meta-analysis and meta-regression analysis. *The Archives of General Psychiatry, 2006;63: 530-538.*

Loewenstein DA, Acevedo A, Agron J, Isaacson R, Strauman S, Crocco E, Barker W, Duara R. Cognitive profiles in Alzheimer's disease and in mild cognitive impairment of different etiologies. *Dementia and Geriatric Cognitive Disorder.* 2006; 21: 309-315.

Crocco E, Loewenstein DA. Psychiatric aspects of mild cognitive impairment. *Current Psychiatric Reports.* 2005; 7: 32-36.

Ownby RL, Rodríguez L, Crocco E, Duara R. Patient and caregiver reports of medication adherence. *International Psychogeriatrics*. 2003;15(Supp 2):310.

Ownby RL, Crocco E, Duara R. Memory disorder clinic patients' reports of medication adherence. *Journal of Clinical Psychiatry.* 2002;63:1076.

C. Research Support

Ongoing Research Support

1 RO1 AG020094-01A1 National Institute on Aging 6/1/03 – 4/30/08 Semantic Interference and Early Detection of Dementia, Principal Investigator: David A. Loewenstein, Ph.D, Co-Investigator: Elizabeth Crocco, M.D., 20% Effort. The major goal of this project is to examine the utility of a new semantic interference test and measures of prospective memory in combination with other neuropsychological and genetic predictors (e.g. ApoE) in predicting cognitive decline in patients with mild cognitive impairment without dementia (MCI) and normal community dwelling elderly.

Total Direct Costs $1,530,000.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Sara J. Czaja, Ph.D.	Professor
eRA COMMONS USER NAME (credential, e.g., agency login) sczaja	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
State University of NY College at Buffalo, NY	B.S.	1975	Psychology
State University of NY at Buffalo, NY	M.S.	1976	Industrial Engineering
State University of NY at Buffalo, NY	Ph.D.	1980	Human Factors/Industrial Engineering

A. Positions and Honors

1980-1982 Senior Research Associate, Buffalo Organization for Social and Technological Innovation, Inc
1984-1988 Assistant Professor, Department of Industrial Engineering, SUNY at Buffalo
1988-1991 Associate Professor, Tenured, Department of Industrial Engineering, SUNY at Buffalo
1989-1990 Research Associate, Professor, Department of Industrial Engineering, University of Miami
1988-1993 Research Director, Stein Gerontological Institute, Miami, FL
1991-1994 Associate Professor, Department of Industrial Engineering, University of Miami
1993-1999 Director, Center on Human Factors & Aging Research, University of Miami School of Medicine
994-present Professor, Dept. of Psychiatry and Behavioral Sciences, University of Miami School of Medicine
1994-present Professor, Department of Industrial Engineering, University of Miami, Coral Gables, FL
1999-present Director, Center on Aging and Technology Research, University of Miami School of Medicine
2002-present Co-Director, Center on Aging, University of Miami, Miami, FL

Other Experience and Professional Memberships

Member, The National Academies, Committee on the Role of Human Factors in Home Healthcare, March 2009-June 2011
Member, Technical Expert Panel, Evidence Based Practice Center, Johns Hopkins University, March 2008-present
Member, Board of International Society for Gerontechnology, June 2008
Member, Advisory Committee, National Alliance for Caregiving, Spring 2008
Member, Program Committee for the International Association of Science and Technology for Development (IASTED), June 2007 – June 2008
Member, Subcommittee, Ely Award, Human Factors and Ergonomics Society, 2007 - present
Faculty Affiliate, Department of Biomedical Informatics, Columbia University, April 2008 – present
Member, Program Committee for the International Association of Science and Technology for Development (IASTED), June 2007–June 2008
Member, Subcommittee, Ely Award, Human Factors and Ergonomics Society, 2007
Member, Program Committee Ninth International ACM SIGACCESS Conference of Computers and Accessibility, 2007-2008

Honors

IBM, University Cooperative Research Award, 2007-2009.
BM Faculty Award, 2006
Provost's Scholarly Activity Award, 1998.
Researcher of the Year, College of Engineering, University of Miami, 1995.

B. Selected peer-reviewed publications (in chronological order).

1. Mitrani VB, Feaster, DJ, McCabe BE, **Czaja SJ**, Szapocznik J. Adapting the structural family systems rating to assess the patterns of interacting in families of dementia caregivers. Gerontologist 2005; 45: 445-455.
2. Mitrani VB, Lewis J, Feaster DJ, **Czaja SJ**, Eisdorfer CE, Schulz R, Szapocznik J. The role of family functioning in the stress process of dementia of caregivers: A Structural family framework. Gerontologist 2006; 46: 97-105.
3. Bank A, Arguelles S, Rubert M, Eisdorfer C, **Czaja SJ**. The value of telephone support groups among e ethnically diverse caregivers of persons with dementia. Gerontologist 2006; 46(1): 134-138.
4. **Czaja SJ**, Schulz R, Belle SH, Burgio L, Armstrong N, Gitlin LN, Coon DW, Martindale-Adams J, Stahl S. Data safety monitoring in social behavioral trials: The REACH II experience. Clin Trials 2006; 3: 107-118.
5. Sharit J, **Czaja SJ**, Augenstein JS, Balasubramanian G, Schell V. Assessing the information environment in intensive care units. Behavior and Information Technology, Vol. 25, No.3 – May-June 2006, 207-220.
6. **Czaja SJ**, Charness N, Fisk AD, Hertzog C, Nair S, Rogers W, Sharit J. Factors predicting the use of technology: findings from the Center on Research and Aging and Technology Enhancement (CREATE). Psychol Aging 2006; 21(2): 333-352.
7. **Czaja SJ**, Schulz R. Technology innovations and aging: Introduction. Generations, 2006; Summer, 6-9
8. **Czaja SJ**. (contributing author). Enhancing the quality of life of Hispanic/Latino, Black/African American, and White/Caucasian dementia caregivers: The REACH II randomized controlled trial REACH II investigators. Ann Intern Med. 2006; 145: 727-738.
9. Keates S, Adams R, Bodine C, **Czaja SJ**, Gordon W, Gregor P et al. Cognitive and learning difficulties and how they affect access to IT systems. Univ Access Inf Soc. 2007; 5: 329-339.
10. **Czaja SJ**, Lee CC. The impact of aging on access to technology. Univ Access Inf Soc. 2007; 5:341-349.
11. Schulz R, Hebert RS, Dew MA, Brown SL, Scheier MF, Beach SR, **Czaja SJ**, Martire LM, Coon D, Langa KM, Gitlin LN, Stevens AB, Nichols L. Patient suffering and caregiver compassion: New opportunities for research, practice, and policy. Gerontologist 2007; 47(1): 4-13.
12. Finkel SI, **Czaja SJ**, Schulz R, Martinovich Z, Harris C, Pezzuto D. E-Care: A telecommunications technology intervention for family caregivers of dementia patients. Am J Geriatr Psychiatry 2007; 15:443-448
13. Nair S, **Czaja SJ**, Sharit J. A multilevel modeling approach to examining individual differences in skill acquisition for a computer-based task. J Gerontol B Psychol Sci Soc Sci. 2007; 62B: 85-96.
14. Nichols LO, Chang C, Lummus A, Burns R, Martindale-Adams J, Graney MJ, Coon DW, **Czaja SJ**. The cost effectiveness of a behavior intervention with caregivers of Alzheimer's patients. J Am Geriatr Soc. 2008; 56(3): 389-592.
15. Ownby R, **Czaja SJ**, Loewenstein D, Rubert M. Cognitive abilities that predict success in a computer-based training program. Gerontologist 2008; 48(2): 170-180.
16. Pak R, **Czaja SJ**, Sharit J, Rogers WA, Fisk AD. The Role of Spatial Abilities and age in Performance in an Auditory Computer Navigation Task. Comput Human Behav 2008; 24: 3045-3051.
17. **Czaja SJ**, Sharit J, Nair SN. Usability of the medicare health website. JAMA 2008; 300 (7): 790-792.
18. Schulz R, McGinnis KA, Zhang S, Martire LM, Hebert RS, Beach SR, Zdaniuk B,**Czaja SJ**, Belle SH Dementia patient suffering and caregiver depression. Alzheimer Dis Assoc Disord. 2008; 22(2): 170-186.
19. Lee CC, **Czaja SJ**, Sharit J. Training older workers for a technology-based jobs. Educ Gerontol. 2009; 35: 15-3
20. Schulz R, **Czaja SJ**, Lustig A, Zdaniuk B, Martire LM, Perdomo D. Improving the quality of life of caregivers of persons with spinal cord injury: A randomized controlled trial. Rehabil Psychol. 2009; 54(1): 1-15
21. Sharit J, Hernandez M, **Czaja SJ**, Pirolli P. Investigating the roles of knowledge and cognitive abilities in older adult information seeking on the Web. ACM Trans Comput Hum Interact 2009; 15(1): Article 3
22. **Czaja SJ**, Sharit J. The aging of the population: Opportunities and challenges for human factors engineering. The Bridge 2009; 39(1): 34-40.
23. **Czaja SJ**, Gitlin LN, Schulz R, Zhang S, Burgio D, Stevens AB., Nichols LO, Gallagher-Thompson D. Development of the risk appraisal measure (RAM): A brief screen to identify risk areas and guide interventions for dementia caregivers. J Am Geriatr Soc. 2009; 57:1064-1072.
24. **Czaja SJ**, Gregor P, Hanson VL. Introduction to the special Issue on aging and information technology. ACM Transactions on Accessible Computing 2009; Vol. 2, No.1, Article 1.

25. Sharit J, **Czaja SJ**, Hernandez AM, Nair SN. The employability of older workers as teleworkers: An appraisal of issues and an empirical study. Human Factors and Ergonomics in Manufacturing Engineering 2009; 19(5): 457-477.
26. Taha, J., Sharit, J., **Czaja, S.J.**. Use of and Satisfaction with Sources of Health Information Among Older Internet Users and Non-Users. The Gerontologist 2009, Vol. 49, No. 5, 663–673
27. Lee, C., Czaja, S.J., Schulz, R. (2010) The Moderating Influence of Demographic Characteristics, Social Support, and Religious Coping on the Effectiveness of a Multicomponent Psychological Caregiver Intervention in Three Racial Ethnic Groups. Journal of Gerontology, Psychological Sciences, 10, 1093.
28. Schulz, R., Zdaniuk, B., Belle, S., **Czaja, S.J.**, Arrighi, M., Zbrozek, S. (2010) Baseline Differences and Trajectories of change for Deceased, Placed, and Community residing Alzheimer's Disease Patients". *Alzheimer Disease & Associated Disorders, Vol 24., No. 2, pg. 143-150.*

C. Research Support.

On going research:

2 PO1 AG017211-11 Czaja (PI) 08/1/09 – 07/31/14
National Institute on Aging/National Institutes on Health
Center on Research and Education for Aging and Technology Enhancement (CREATE III)
The Center on Research and Education for Aging and Technology Enhancement (CREATE) conducts multidisciplinary research aimed at understanding how age-related changes in function impact on older person's ability to interact successfully with technical systems. The Center also disseminates research findings in a wide variety of settings such as design guidelines for the design of technical systems.

Retirement Research Foundation Czaja (PI) 10/01/08 – 09/31/10
Psychosocial Intervention Program for Working Caregivers
To implement and test the effectiveness of a multi-component psycho-social technology-based intervention aimed at reducing the risk for adverse health outcomes and enhancing work performance and quality of life of working caregivers of older adults; and to refine and package the intervention program for working caregivers so that it can be implemented in a wide variety of work settings.

The OASIS Institute Czaja (PI) 02/01/09 – 07/31/10
Oasis Connections Effectiveness Study
Evaluate the effectiveness of the OASIS Connections curriculum in teaching older adults basic computer and Internet skills so that they are able to successfully adapt to today's technology environment.

1 R01 NS055672-01 Antoni (PI) 10/01/06 – 09/30/10
Cognitive Behavioral Stress Management for Chronic Fatigue Syndrome
4-year study that uses a 10-week telephone based cognitive behavioral stress management intervention (T-CBSM) to illuminate neuroimmune mechanisms underlying the effects of stress and stress management on physical health and immune regulation in individuals with chronic fatigue syndrome (CFS) relative to participants receiving a health promotion telephone (T-HP) intervention.

National Institute of Health. Czaja (PI) 08/01/07 – 07/31/09
Research Support to Promote Diversity in Health Related Research - Supplement
The project will focus on examining the effect of varying e-learning formats on the ability of older adults to use Internet-based problem solving applications such as benefits or health insurance eligibility programs (e.g., Medicare, Social Security).

5P50AG025711-04 Loewenstein (PI) 04/1/08 – 03/31/09
Cognitive Rehabilitation in Alzheimer's Disease, Project II
The proposed study compares the effectiveness of a cognitive and a functional intervention in their capacity to improve cognitive and functional abilities in older adults, including those of Hispanic and African American

background. In addition to improving functional autonomy, independence, and quality of life, these interventions could ultimately decrease the challenges, resulting from the growing number of older adults, to social services and to the national public health system.

Completed research:

2 PO1 AG017211-10 Czaja (PI) 08/1/04 – 07//31/09
National Institute on Aging/National Institutes on Health
Center on Research and Education for Aging and Technology Enhancement (CREATE)
The Center on Research and Education for Aging and Technology Enhancement (CREATE) conducts multidisciplinary research aimed at understanding how age-related changes in function impact on older person's ability to interact successfully with technical systems. The Center also disseminates research findings in a wide variety of settings such as design guidelines for the design of technical systems.

5 R01 AA 014850-04 Czaja (PI) 03/01/07 – 08/31/08
Modality Supplement Analytic Project
HMC- Health Maintenance Consortium Resource Center. Subcontract from University of Pennsylvania.

NIOSH Czaja (PI) 07/01/06 – 08/31/07
Understanding the Training Needs of Lower SES Older Workers
The objectives of this study are to gather information regarding the: 1) training needs of older adults wishing to return to work; 2) barriers that prevent older adults from participating in worker retraining programs (individual—e.g., anxiety; organizational—e.g., job availability); and 3) learning formats that are most suited for older learners. The emphasis will be on ethnically diverse lower SES older adults.

angeloth Foundation Czaja (PI) 07/1/06 – 06/30/08
A Computer Integrated Telephone System for Caregivers
The goal of the project is to evaluate a technology based psycho-educational intervention for minority family caregivers of patients with dementia. The intervention will be delivered via video phone technology and is intended to enhance the quality of life for caregivers and patients and reduce caregiver distress.

1-R21-CA102761-01A2 Penedo (PI) 04/1/05 – 04/30/07
NIH-NCI
CBSAM Effects in Men with Advanced Prostate Cancer
The purpose of this study is to examine the effects of relaxation and coping techniques on quality of life, distress, depression, coping, and physical health in men diagnosed with advanced prostate cancer.

R RO1 NR008272-02 Czaja (PI) 12/01/02 – 1130/07
National Institute of Nursing Research
Caregiver Intervention for Caregivers of SCI Patients
The specific aim of this project is to test the efficacy of an innovative multi-component psychosocial/technology intervention aimed at reducing the risk for adverse health outcomes among family caregivers of older survivors with spinal cord injury and to improve the well-being of the spinal cord injured survivor.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Kunjan R. Dave	**Research Assistant Professor**
eRA COMMONS USER NAME **KRDAVE**	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Gujarat University, Ahmedabad, India	B.Sc.	1993	Biochemistry
The M. S. University of Baroda, Vadodara, India	M.Sc.	1995	Biochemistry
The M. S. University of Baroda, Vadodara, India	Ph.D.	2000	Biochemistry
University of Miami School of Medicine, Miami, USA.	Post doc	2000-2003	Neurology

A. Position and Honors

Professional experience:

- Research Assistant Professor (2006 - present) Department of Neurology, Univ. of Miami School of Medicine, Miami, USA.
- Assistant Scientist (2003 - 2006) Department of Neurology, Univ. of Miami School of Medicine, Miami, USA.
- Biochemist (September, 1999 – February, 2000) Pharmacology Division, Research and Development, The Zandu Pharmaceutical works, Mumbai (Bombay), India.

Scholarship / Award:

- Stanley J. Glaser foundation biomedical research award, University of Miami Miller School of Medicine 2007 - 2008.
- Recipient of award of Bursaries for young scientists to attend Brain 05 conference (Amsterdam, The Netherlands, June 2005) organized by the International Society for Cerebral Blood Flow and Metabolism.
- Received "Hari Ohm Ashram Prerit Shri Bhaikaka Inter-University Smarak Trust" Award, Sardar Patel University, Vallabh Vidyanagar, Gujarat, India for research paper "Effect of Aluminium-induced Alzheimer-like condition on oxidative energy metabolism in rat liver, brain and heart mitochondria" for year 1999-2000.
- Received "Hari Ohm Ashram Prerit Shri Bhaikaka Inter-University Smarak Trust" Award, Sardar Patel University, Vallabh Vidyanagar, Gujarat, India for research paper "Paracetamol hepatotoxicity and microsomal function" for year 1999-2000.
- Recipient of award of The Lady Tata Memorial Trust Research Scholarship, Mumbai (Bombay), India for years 1996-98.
- Recipient of Scholarship from Higher Education Commissioner, Government of Gujarat, India for year 1996.

Membership in Professional Societies:

- Member International Society for Cerebral Blood Flow and Metabolism.
- Member Society for Neurosciences.

B. Selected Peer-Reviewed Publications (Selected from 38 peer-reviewed publications)

* First two authors contributed equally to the work.

1) * **Dave K.R.**, Defazio R.A, Raval A.P., Dashkin O., Saul I., Iceman K.E., Perez-Pinzon M.A., Drew K.L. Protein kinase C epsilon activation delays neuronal depolarization during cardiac arrest in the euthermic arctic ground squirrel. J Neurochem. 110:1170-9, 2009. PMID: 19493168; PMCID: PMC2774829

2) * Della-Morte D., **Dave K.R.**, Defazio R.A., Bao Y.C., Raval A.P., Perez-Pinzon M.A. Resveratrol pretreatment protects rat brain from cerebral ischemic damage via a sirtuin 1 - uncoupling protein 2 pathway. Neuroscience. 159:993-1002, 2009.
3) **Dave K.R.**, DeFazio R.A., Raval A.P., Torraco A., Saul I., Barrientos A., Perez-Pinzon M.A. Ischemic preconditioning targets the respiration of synaptic mitochondria via protein kinase C epsilon. J Neurosci. 28:4172-82, 2008. PMID: 18417696; PMCID: PMC2678917
4) * Raval A.P., **K.R. Dave**, M.A. Perez-Pinzon, Resveratrol mimics ischemic preconditioning in the brain, J Cereb Blood Flow Metab, 26:1141-7, 2006.
5) **Dave K.R.**, Saul I., Prado R., Busto R., Perez-Pinzon M.A. Remote organ ischemic preconditioning protect brain from ischemic damage following asphyxial cardiac arrest. Neurosci Lett., 404:170-5, 2006. PMID: 16781056
6) * **Dave, K.R.**, R. Prado, A.P. Raval, K.L. Drew, M.A. Perez-Pinzon, The arctic ground squirrel brain is resistant to injury from cardiac arrest during euthermia, Stroke, 37:1261-1265, 2006. PMID: 16574920
7) * **Dave, K.R.**, C. Lange-Asschenfeldt, A.P. Raval, R. Prado, R. Busto, I. Saul, M.A. Perez-Pinzon, Ischemic preconditioning ameliorates excitotoxicity by shifting glutamate/gamma-aminobutyric acid release and biosynthesis, J Neurosci Res., 82:665-673, 2005. PMID: 16247804
8) * Raval, A. P., K.R. Dave, R. Prado, L.M. Katz, R. Busto, T.J. Sick, M.D. Ginsberg, D. Mochly-Rosen, M.A. Perez-Pinzon, Protein kinase C delta cleavage initiates an aberrant signal transduction pathway after cardiac arrest and oxygen glucose deprivation, J Cereb Blood Flow Metab, 25:730-741, 2005
9) * **Dave, K.R.**, A.P. Raval, R. Prado, L.M. Katz, T.J. Sick, M.D. Ginsberg, R. Busto, M.A. Perez-Pinzon, Mild cardiopulmonary arrest promotes synaptic dysfunction in rat hippocampus. Brain Res, 1024:89-96, 2004
10) Raval, A.P., **K.R. Dave**, D. Mochly-Rosen, T.J. Sick, M.A. Pérez-Pinzón, ePKC is required for the induction of tolerance by ischemic and NMDA – mediated preconditioning in the organotypic hippocampal slice. Journal of Neuroscience, 23:384-391, 2003. PMID: 12533598
11) Xu, G-P, **K.R. Dave**, R. Vivero, R. Schmidt-Kastner, T.J. Sick, M.A. Pérez-Pinzón, Improvement in neuronal survival after ischemic preconditioning in hippocampal slice cultures. Brain Research, 952:153-158, 2002. PMID: 12376175
12) **Dave, K.R.**, S.S. Katyare, Effect of alloxan-induced diabetes on serum and cardiac butyrylcholinesterases. Journal of Endocrinology, 175:241-250, 2002. PMID: 12379509
13) **Dave, K.R.**, T.H. Patel, S.S. Katyare, Insulin or sulfonylurea treatments of the diabetics differentially affect erythrocyte membrane and serum enzymes and extent of protein glycosylation. Indian Journal of Clinical Biochemistry, 16:81-88, 2002.
14) **Dave, K.R.**, I. Saul, R. Busto, M.D. Ginsberg, T.J. Sick, M.A. Perez-Pinzon, Mitochondrial function following global cerebral ischemia in rat hippocampus. Journal of Cerebral Blood Flow and Metabolism, 21:1401-1410, 2001. PMID: 11740201
15) Satav, J.G., **K.R. Dave**, S.S. Katyare, Influence of insulin status on extramitochondrial oxygen metabolism in the rat. Hormone and Metabolic Research, 32:57-61, 2000. PMID: 10741686

Current Research Support.

0735106N Dr. Dave, P.I. 07/01/2007-06/30/2011
AHA (National Scientist Development Grant)
Mechanisms of aggravated cerebral ischemic damage in diabetes
The current objective is to evaluate the effect of Chronic Intermittent Mild Hypoglycemia on outcome following cerebral ischemic damage in diabetes.
Role: Principal Investigator

1R01NS054147-01A1 Dr. Pérez-Pinzón, P.I. 7/06/06- 5/31/11
NIH/NINDS
Mitochondria and Cerebral ischemia: intracellular signaling
The major goal of this project is to study the mechanisms by which ePKC protects neuronal mitochondria whereas dPKC promotes cell death after cerebral ischemia.
Role: Co-investigator

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2

Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Hannah Gardener, ScD	Assistant Scientist

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Dartmouth College, New Hampshire	AB	1996-2000	Psychological and Brain Sciences
Harvard School of Public Health, Massachusetts	ScD	2003-2007	Epidemiology

NOTE: The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

December, 2009-present	Assistant Scientist, Department of Neurology, University of Miami Miller School of Medicine, Miami, FL
April-September, 2009	Research Assistant Professor, Department of Pediatrics, University of Miami Miller School of Medicine, Miami, FL
September 2007-April, 2009	Post-doctoral Associate, Department of Neurology, University of Miami Miller School of Medicine, Miami, FL
July, 2002-September, 2004	Senior Research Assistant, Department of Society, Human Development, and Health, Harvard School of Public Health, Boston, MA

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation.

Gardener H, Beecham A, Cabral D, Yanuck D, Slifer S, Wang L, Blanton S, Sacco R, Juo SH, Rundek T. Carotid plaque and candidate genes related to inflammation and endothelial function in Hispanics from northern Manhattan. *Stroke*. In press.

Rundek T, **Gardener H**, Xu Q, Goldberg RB, Wright CB, Boden-Abala B, Disla N, Paik MC, Elkind MSV, Sacco RL. Insulin resistance and risk of ischemic stroke among non-diabetic individuals from the Northern Manhattan Study. *Archives of Neurology*. 2010;67(10):1195-1200.

Ramos A, Wohlgemuth WK, **Gardener H**, Lorenzo D, Dib S, Wallace D, Nolan B, Boden-Abala B, Elkin MSV, Sacco RL, Rundek T. Snoring and insomnia are not associated with subclinical atherosclerosis in the Northern Manhattan Study (NOMAS). *International Journal of Stroke*. 2010;5(4):264-268.

Morte D, **Gardener H**, Denaro F, Boden-Abala B, Elkind MSV, Paik, MC, Sacco RL, Rundek T. Metabolic syndrome increases arterial stiffness: The Northern Manhattan Study. *International Journal of Stroke*. 2010;5(3):138-144.

Gardener H, Morte D, Elkind MSV, Sacco RL, Rundek T. Lipids and carotid plaque in the Northern Manhattan Study (NOMAS). *BMC Cardiovascular Disorders*. 2009;9:55.

Sacco RL, Khatri M, Rundek T, Xu Q, **Gardener H**, Boden-Abala B, Di Tullio M, Homma S, Elkind MSV, Paik MC. Improving global vascular risk prediction with behavioral and anthropometric factors: the multi-ethnic Northern Manhattan Cohort Study. *Journal of the American College of Cardiology*. 2009;54(24):2303-11.

Sacco RL, Blanton SH, Slifer S, Beecham A, Glover K, **Gardener H,** Wang L, Sabala E, Juo SH, Rundek T. Heritability and linkage analysis for carotid intima-media thickness: The family study of stroke risk and carotid atherosclerosis. *Stroke.* 2009;40(7):2307-2312.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Carlos T. Moraes	Professor
eRA COMMONS USER NAME cmoraes	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Escola Paulista de Medicina, Sao Paulo, Brazil	B.Sc.	1983	Biomedical Sciences
Escola Paulista de Medicina, Sao Paulo, Brazil	M.Sc.	1987	Molecular Biology
Department of Genetics and Development, Columbia University	M.A.	1991	Genetics & Development
Department of Genetics and Development, Columbia University	Ph.D.	1993	Genetics & Development

A. Personal Statement

B. Positions and Honors.

PROFESSIONAL APPOINTMENTS

2005 - Professor (Tenured). Dept. of Neurology, University of Miami, Miami, FL.
1998 – 2005 Associate Professor (Tenured). Dept. of Neurology, University of Miami, Miami, FL.
1993 – 1998 Assistant Professor. Dept. of Neurology, University of Miami, Miami, FL.
1992 – 1993 Postdoctoral Research Fellow. Dept. of Neurology, Columbia University, New York, NY.

AWARDS AND OTHER PROFESSIONAL ACTIVITIES:

2010 – 2014 NIH Scientific Review Panel Member (Neural Oxidative Metabolism and Death Review Group)
2007 - Cont Scientific Advisory Committee member, Muscular Dystrophy Association
2005 - Cont Scientific and Medical Advisory Board member, United Mitochondrial Disease Foundation
2009 – 2011 Chair, Scientific and Medical Advisory Board, United Mitochondrial Disease Foundation
2005 Provost Award for Scholarly Activity, University of Miami
2002 - 2006 NIH Scientific Review Panel Member (Genetics of Health and Disease Review Group)
1999 - 2004 Scientific Advisory Committee member, Muscular Dystrophy Association
1995 - 1999 PEW Scholar in the Biomedical Sciences
1997 National Eye Institute Committee on "Development of a National Plan for Vision Research
1997 National Heart, Lung, and Blood Institute Scientific Review Committee for RFA: HL-96-013
1998 Chemistry and Related Sciences Special Emphasis Review Panel (NIH).
1998 Molecular Cytology Special Emphasis Panel (NIH).

C. Selected peer-reviewed publications (15 /105).

Mitochondrial DNA deletions in progressive external ophthalmoplegia and Kearns-Sayre syndrome. Moraes. C.T., DiMlauro, S., Zeviani, M., Lombes, A., Shanske. S., Miranda, A. F et al..
New England Journal of Medicine, 320: 1 293- 1299 (1989).

A mitochondrial tRNA anticodon swap associated with a muscle disease. Moraes. C.T., Ciacci, F., Bonilla, E., Ionascescu, V., Schon, E.A., and DiMauro, S.
Nature Genetics, 4:284-287 (1993).

Expanding the functional human mitochondrial DNA database by the establishment of primate xenomitochondrial cybrids. Lesley Kenyon and Carlos T. Moraes.

Proceedings of the National Academy of Sciences USA 94:9131-9135 (1997). [PMC23071].

Rapid Directional Shift of Mitochondrial DNA Heteroplasmy in Animal Tissues by a Mitochondrially-Targeted Restriction Endonuclease. Maria Pilar Bayona-Bafaluy, Bas Blits, Brendan Battersby, Eric A. Shoubridge, and Carlos T. Moraes.
Proc. Natl. Acad. Sci. USA 102: 14392–14397 (2005) [PMC1242285].

Cytochrome c Oxidase is Required for the Assembly/Stability of Respiratory Complex I in Mouse Fibroblasts Francisca Diaz, Hirokazu Fukui, Sofia Garcia and Carlos T. Moraes.
Mol. Cell. Biol. 26:4872-4881 (2006) [PMC1489173]

Cytochrome c Oxidase Deficiency in Neurons Decreases both Oxidative Stress and Amyloid Formation in a Mouse Model of Alzheimer's Disease. Hirokazu Fukui, Francisca Diaz, Sofia Garcia, Carlos T. Moraes.
Proc Natl. Acad. Sci. USA 104:14163-14168 (2007) [PMC1955773]

Activation of the PPAR/PGC-1α pathway prevents a bioenergetic deficit and effectively improves a mitochondrial myopathy phenotype.
T. Wenz, F. Diaz, B. M. Spiegelman and C. T. Moraes
Cell Metabolism 8:249-56. (2008) [PMC2613643]

Mechanisms of formation and accumulation of mitochondrial DNA deletions in aging neurons
Hirokazu Fukui and Carlos T. Moraes.
Hum. Mol. Genet. 18:1028-36 (2009) [PMC2722231]

PGC-1α/β induced expression partially compensates for respiratory chain defects in cells from patients with mitochondrial disorders. Sarika Srivastava, Francisca Diaz, Anne Lombes and Carlos T. Moraes*.
Human Molecular Genetics 18:1805-12. (2009)

Intra- and inter-molecular recombination of mitochondrial DNA after in vivo induction of multiple double-strand breaks. Sandra R. Bacman, Sion L. Williams and Carlos T. Moraes*.
Nucl. Acid Res. 37:4218-26 (2009) [PMC2715231]

MTERF2 regulates oxidative phosphorylation by modulating mtDNA transcription. Tina Wenz, Corneliu Luca, Alessandra Torraco and Carlos T. Moraes *Cell Metabolism* 9:499-511 (2009) [PMC2778471]

In vivo methylation of mtDNA reveals the dynamics of protein-mtDNA interactions
Adriana Rebelo, Sion L. Williams and Carlos T. Moraes
Nucl. Acid Res. 37:6701-6715 (2009) [PMC2777446]

Increased muscle PGC-1α expression protects from sarcopenia and metabolic disease during aging
Tina Wenz, Susana G. Rossi, Richard L. Rotundo, Bruce Spiegelman and Carlos T. Moraes
Proc. Natl. Acad. Sci. USA 106:20405-20410 (2009) [PMC2787152]

Organ-specific shifts in mtDNA heteroplasmy following systemic delivery of a mitochondria-targeted restriction endonuclease. Bacman SR, Williams SL, Garcia S, Moraes CT. Gene Ther. 17:713-20 (2010).

The mtDNA mutation spectrum of the progeroid Polg mutator mouse includes abundant control region multimers. Siôn L. Williams, Jia Huang, Yvonne JK Edwards, Richard Ulla, Lloye Dillon, Tomas Prolla, Jeffery Vance, Carlos T. Moraes* and Stephan Züchner*
Cell Metabolism, 12:675-82. (*co-corresponding authors) (2010)

C. Research Support.

5R01EY010804-11 Moraes 12/01/94-7/31/12
NIH/NEI
"Setting the stage for the replacement of mitochondrial genes"
The objective of this project is to develop genetic approaches to compensate for the deleterious effects of mtDNA mutations.
Role: PI

1R01AG036871-01 Moraes 06/01/2010 – 05/31/2015
NIH/NIA
"Mitochondrial Dysfunction in Neurodegeneration and Compensatory Approaches"
The objective of this project is to investigate the effects of increased mitochondrial biogenesis in aging.
Role: PI

MDA172638 Moraes 7/1/2010 – 6/30/2013
Muscular Dystrophy Association (MDA)
"Increased Mitochondrial Biogenesis as Therapy to Mitochondrial Disorders"
The objective of this project is to investigate whether a mitochondrial myopathy in mice can be treated by drugs that induce mitochondrial biogenesis.
Role: PI

5R01CA085700-05 Moraes 1/15/01-12/31/10
NIH/NCI
"The Role of Oxidative Phosphorylation in Cell Growth and Death"
The objective of this project is to investigate the role of mitochondrial DNA variations in apoptosis and in certain cancers
Role: PI

Moraes 1/1/10-12/31/11
Florida Biomedical Research Foundation
"Slowing Degenerative Processes by Bolstering Cellular Bioenergetics"
The objective of this project is to investigate the role of mitochondrial biogenesis in neurodegenerative diseases
Role: Co-PI

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Miguel A. Perez-Pinzon, PhD, FAHA	Professor
eRA COMMONS USER NAME (credential, e.g., agency login) mperezpinzon	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
University of Panama	B.Sc.	1983	Biology
University of Miami	M.Sc.	1987	Marine Biology
University of Miami	Ph.D.	1991	Neurophysiology
New York University	Postdoc	1992	Neurophysiology
Stanford University	Postdoc	1993	Neuroscience

A. Position and Honors

Positions and Employment

1982-1983 Research assistant: Smithsonian Tropical Research Institute. Dr. Peter W. Glynn (Supervisor).

1985 Research Assistant: Smithsonian Tropical Research Institute. Drs. Jeffrey Graham and Ira Rubinoff (Supervisors)

1988 Teaching Assistant, Physiology of Marine Organisms; University of Miami, Miami, Fl

1994 – 1995 Research Associate, Department of Neurology, University of Miami School of Medicine. Dr. Thomas J. Sick (Supervisor)

1995 – 2001 Assistant Professor, Department of Neurology, University of Miami School of Medicine.

1999 – 2006 Co-Director of Cerebral Vascular Disease Center, University of Miami School of Medicine, Miami, Fl (Dr. Ginsberg, Director)

2000 – 2003 NIH-NINDS BDCN-3 Study Section reviewer

2001 – 2006 Associate Professor, Department of Neurology, University of Miami School of Medicine.

2004 – 2008 Brain 2 American Heart Association Grant Reviewer

2006 – 2010 NIH-NINDS BINP Study Section

2006 – present Director of Cerebral Vascular Disease Center, University of Miami, Miller School of Medicine, Miami, Fl

2006 – present Professor, Department of Neurology, University of Miami Miller School of Medicine, Miami, Fl

2007 – 2008 International Stroke Conference Program Committee: Co-Chair–Experimental Mechanisms and Models.

2008 – 2010 International Stroke Conference Program Committee: Chair–Experimental Mechanisms and Models.

2007 – present Associate Chair for Basic Science, Department of Neurology, University of Miami Miller School of Medicine, Miami, F

2010 – present Vice-Chair for Basic Science, Department of Neurology, University of Miami Miller School of Medicine, Miami, Fl

Honors, Awards, and Professional Societies

1982, 1983 Fellowships (2), Smithsonian Tropical Research Institute (STRI).

1986 Fellowship, Fishing and Conservation Trust. Miami, Fl

1989 - present Member of Society for Neuroscience (1989), International Society on Oxygen Transport to Tissues (1996), International Society of Cerebral Blood Flow and Metabolism (1995),

American Association for the Advancement of Science (1996) and American Heart Association (2000)

1991 Koczy Fellowship, (Student of the year) for excellence in graduate research and education, Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, Fl

1991 Invited speaker at the Society for Experimental Biology in Birmingham, U.K.

1996 James A. Shannon Director's Award from the National Institute of Neurological Disorders and Stroke, NIH.

2000 Invited speaker at the Pharmacology of Cerebral Ischemia Symposium. Marburg, Germany.

2002 Grass Traveling Scientist for the Alaska Chapter of the Society for Neuroscience. Society for Neuroscience

2009 Associate Editor for the journal: Translational Stroke Research

2010 Assistant Editor for the journal: Stroke

2010 Elected as Fellow of the American Heart Association/American Stroke Association (FAHA)

B. Publications (out of 91)

Most relevant to the current application

1. Raval AP, Dave KR, **Perez-Pinzon MA**. (2005). Resveratrol mimics ischemic preconditioning in the brain. J Cereb Blood Flow Metab. 26(9):1141-1147.
2. Della Morte D, Dave KR, DeFazio RA, Bao YC, Raval AP, **Perez-Pinzon MA**. (2009) Resveratrol pretreatment protects rat brain from cerebral ischemic damage via a SIRT1-UCP2 pathway. Neuroscience. 159(3):993-1002.
3. Morris KM, Lin HW, Thompson J, **Perez-Pinzon MA**. (2010). Pathways for Ischemic Cytoprotection: Role of Sirtuins in Caloric Restriction, Resveratrol and Ischemic Preconditioning. J Cereb Blood Flow Metab. In press

Additional recent publications of importance to the field (in chronological order)

1. Lin HW, Thompson JW, Morris KC, **Perez-Pinzon MA**. (2010). Signal Transducers and Activators of Transcription (STATs)-mediated mitochondrial neuroprotection. Antioxid Redox Signal. In Press
2. Kim EJ, Raval AP, Hirsch N, **Perez-Pinzon MA**. (2010). Ischemic Preconditioning Mediates Cyclooxygenase-2 Expression Via Nuclear Factor-Kappa B Activation in Mixed Cortical Neuronal Cultures Transl Stroke Res. Jan 26;1(1):40-47
3. DeFazio RA, Raval AP, Lin HW, Dave KR, Della-Morte D, **Perez-Pinzon MA**. (2009). GABA synapses mediate neuroprotection after ischemic and epsilonPKC preconditioning in rat hippocampal slice cultures. J Cereb Blood Flow Metab. 29:375-84.
4. Raval AP, Lin HW, Dave KR, Defazio RA, Morte DD, Kim EJ, **Perez-Pinzon MA**. (2008) Resveratrol and ischemic preconditioning in the brain. Curr Med Chem. 15(15): 1545-1551.
5. Yenari M, Kitagawa K, Lyden P and **Perez-Pinzon MA**. (2008) Metabolic down regulation: A key to successful neuroprotection? Stroke. 39(10):2910-7.
6. Kim E, Raval AP and **Perez-Pinzon MA**. (2008) Preconditioning mediated by sublethal oxygen glucose deprivation induced cyclooxygenase-2 expression via the signal transducers and activators of transcription 3 phosphorylation. J Cereb Blood Flow & Metabol. 28(7):1329-40.
7. Dave KR, DeFazio RA, Raval AP, Torraco A, Saul I, **Barrientos A** and **Perez-Pinzon MA**. (2008) Ischemic preconditioning targets the respiration of synaptic mitochondria via protein kinase C epsilon. J Neuroscience. 28(16): 4172-4182.
8. Raval AR, Dave KR, Prado R, Katz LM, Busto R, Sick TJ, Ginsberg MD, Mochly-Rosen D, **Perez-Pinzon MA** (2005) Protein kinase c delta cleavage initiates an aberrant signal transduction pathway after cardiac arrest and oxygen glucose deprivation. J Cereb Blood Flow Metab. 25(6):730-41.
9. Dave KR, Raval AP, Purroy J, Kirkinezos IG, **Moraes CT**, Bradley WG, **Pérez-Pinzón MA**. (2005) Aberrant deltaPKC activation in the spinal cord of Wobbler mouse: a model of motor neuron disease

Neurobiol Dis. 2005;18(1):126-33
10. Kirkinezos IG, Bacman SR, Hernandez D, Oca-Cossio J, Arias LJ, **Perez-Pinzon MA**, Bradley WG, **Moraes CT**. (2005) Cytochrome c association with the inner mitochondrial membrane is impaired in the CNS of G93A-SOD1 mice. J Neurosci. 5;25(1):164-72.
11. Bright R., Raval AP, Dembner JM, **Perez-Pinzon, MA**, Steinberg GK, Yenari MA, Mochly-Rosen D. (2004) Protein kinase C δ mediates cerebral reperfusion injury *in vivo.* J. Neurosci. 24 (31): 6880-6888.
12. Yoshimasa, T., **Perez-Pinzon MA**, Ginsberg M.D. and Sick T. J. (2004) Mitochondria consume energy and compromise cellular membrane potential by reversing ATP synthetase activity during focal ischemia in rats. J Cereb Blood Flow Metab. 24(9):986-992.
13. Hu, B.R., Janelidze, S., Ginsberg, M.D., Busto, R., **Perez-Pinzon, M.**, Sick, T.J., Siesjo, B.K. and Liu, C.L., Protein aggregation after focal brain ischemia and reperfusion, J Cereb Blood Flow Metab, 21 (2001) 865-75.
14. Xu GP, Dave KR, **Moraes CT**, Busto R, Sick TJ, Bradley WG, **Pérez-Pinzón MA**. (2001) Dysfunctional mitochondrial respiration in the wobbler mouse brain. Neurosci Lett. 16;300(3):141-4.
15. **Pérez-Pinzón MA**, Xu GP, Born J, Lorenzo J, Busto R, Rosenthal M, Sick TJ. (1999) Cytochrome C is released from mitochondria into the cytosol after cerebral anoxia or ischemia. J Cereb Blood Flow Metab. 19(1):39-43.

C. Research Support

Ongoing Research Support

R01 NS45676-05 **Pérez-Pinzón (PI)** 6/1/07-5/31/15
NIH/NINDS
Mechanisms of Neuroprotection against Cardiac Arrest
The major goal of this project is to study the mechanisms of synaptic and vascular dysfunction and putative neuroprotective agents following cardiac arrest.

R01 NS34773-11 **Pérez-Pinzón (PI)** 6/1/09-4/30/14
NIH/NINDS
Ischemic Preconditioning: Mechanisms of Neuroprotection
The major goal of this project is to study the signaling pathways that lead to ischemic preconditioning neuroprotection

1R01NS054147-04 **Pérez-Pinzón (PI)** 6/01/06- 5/31/11
NIH/NINDS
Mitochondria and Cerebral ischemia: intracellular signaling
The major goal of this project is to study the signaling mechanisms that may promote either mitochondrial dysfunction or protection after cerebral ischemia.

Completed Research Support

Florida Department of Health & the James and Esther King Biomedical Research Program
(08KB-03) Ischemic Preconditioning: Mechanisms of Neuroprotection (Perez-Pinzon) Role: PI