

## **CURRICULUM VITAE**

**Alanna C. Morrison**

**October 2006**

### **ADDRESS:**

#### **Office**

The University of Texas School of Public Health  
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### **EDUCATION:**

- 1996-2001      Graduate School of Biomedical Sciences  
                  University of Texas Health Science Center, Houston, TX  
                  Degree Awarded: Ph.D., Human and Molecular Genetics Program
- 1993-1996      University of Michigan, Ann Arbor, MI  
                  Degree Awarded: B.S. High Honors, University of Michigan Honors  
                  College, Department of Biology

### **RESEARCH EXPERIENCE:**

- June 2003-Present      Assistant Professor  
                                  University of Texas Health Science Center at Houston  
                                  School of Public Health  
                                  Division of Epidemiology  
                                  Human Genetics Center
- August 2002-June 2003      Research Fellow  
                                  University of Texas Health Science Center at Houston  
                                  School of Public Health  
                                  Human Genetics Center
- May 2001-August 2002      Postdoctoral Fellow  
                                  University of Texas Health Science Center at Houston  
                                  School of Public Health  
                                  Human Genetics Center

August 1996-May 2001      Ph.D. Dissertation: “Familial aggregation, candidate genes and genome scans: analyzing the role of genetics in stroke”  
University of Texas Health Science Center at Houston  
Graduate School of Biomedical Sciences  
Human Genetics Center  
Advisor: Eric Boerwinkle, Ph.D.

May 1994-August 1996      Honors Thesis: “Ophthalmic sustained release cysteamine for cystinosis induced corneal opacities”  
University of Michigan, Ann Arbor, MI  
Department of Pediatric Cardiology  
Advisor: Robert J. Levy, M.D.

### **HONORS AND AWARDS:**

University of Texas Health Science Center Outstanding Young Investigator, 2005

Presidents’ Research Scholarship, 2000-2001

Schissler Foundation Fellowship, 1998-1999

High Honors Distinction for Honors Thesis: “Ophthalmic sustained release cysteamine for cystinosis induced corneal opacities” August 1996

University of Michigan Alumni Scholarship, September 1993-May 1994

### **COMMITTEES AND ACTIVITIES:**

Graduate School of Biomedical Science Faculty, Program in Human and Molecular Genetics, Regular Member

Graduate School of Biomedical Science, Program in Human and Molecular Genetics Admissions Committee, Chair

Graduate School of Biomedical Science, Curriculum Committee, Member

American Society of Human Genetics, Member

Graduate School of Biomedical Science Outreach Program, Science Fair Judge

### **PRESENTATIONS:**

**Morrison, A.C.** Fine mapping genes for sodium-lithium countertransport on chromosome 10. Family Blood Pressure Program Analysis Workshop. Ann Arbor, MI. September 2006.

**Morrison, A.C.** Coronary heart disease risk prediction using a genetic risk score. Human and Molecular Genetics Annual Symposium. Invited speaker. Houston, TX. March, 2006.

Bhatia P., Hilsenbeck S.G., Dunn J.K., Klos K., Chenault C., **Morrison A.C.** Comparing improvements in survival for older and younger breast cancer patients. Cancer Center Symposium. Baylor College of Medicine, Houston, TX. November 2005

Rodin A.S., Klos K., Maitland-van der Zee A.-H., **Morrison A.C.**, Woodage T. Litvinenko A., Boerwinkle E. Comparing analytic strategies for genome-wide association using real data. Pacific Symposium on Biocomputing. Big Island, HI. March 2005

**Morrison A.C.** Permutation methods for evaluating context-dependent linkage analysis. Presentation. Family Blood Pressure Program Sixth Annual Workshop. Baltimore, MD. July 2002

**Morrison A.C.** Context-dependent linkage analysis considering family history of stroke. Presentation. Family Blood Pressure Program Fourth Annual Workshop. Ann Arbor, MI. May 2001

Liao D., Boerwinkle E., Pankow J., Evans G., **Morrison A.C.**, Chambless L., Sharrett R., Heiss G. Associations of angiotensin converting enzyme insertion/deletion (ACE I/D) and angiotensin II type 1 receptor gene A→C (AGT-R1) polymorphisms with hypertension. The ARIC Study. Poster presentation. 73<sup>rd</sup> Scientific Sessions. American Heart Association. New Orleans, LA. November 2000

Huang Q., **Morrison A.C.**, Boerwinkle E. Linkage disequilibrium structure and its impact on the localization of a candidate functional mutation. Platform and poster presentation. Genetic Analysis Workshop (GAW) 12. San Antonio, TX. October 2000

**Morrison A.C.**, Folsom A.R., Fornage M., Boerwinkle E. The genetics of stroke. Poster presentation. 50<sup>th</sup> Annual Meeting. The American Society of Human Genetics. Philadelphia, PA. October 2000

**Morrison A.C.**, Fornage M., Liao D., Boerwinkle E. Parental history of stroke predicts subclinical stroke, but not clinical stroke. Platform presentation. Texas Genetics Society Meeting. Houston, TX. March 2000

**Morrison A.C.**, Xiong M., Boerwinkle E. Qualitative Linkage Disequilibrium Based Regression: A method for investigating the role of genes in the etiology of stroke. Poster Presentation. Texas Genetics Society Meeting. College Station, TX. March 1999

**Morrison A.C.**, Brancati F., Folsom A.R., Smith L., Boerwinkle E.  $\beta$ 3-adrenergic receptor Trp64Arg polymorphism does not predict incident CHD or carotid intima-media thickness in a community-based sample of whites: the ARIC study. Poster Presentation. Texas Genetics Society Meeting. Austin, TX. April 1998

### **PUBLICATIONS:**

Bare L.A., **Morrison A.C.**, Rowland C.M., Shiffman D., Luke M.M., Iakoubova O.A., Kane J.P., Malloy M.J., Ellis S.G., Pankow J.S., Willerson J.T., Devlin J.J., Boerwinkle E. Genetic risk of coronary heart disease in the Atherosclerosis Risk in Communities (ARIC) Study: Application of a genetic risk score. *Circulation* (2006) Submitted.

Grove M.L., **Morrison A.C.**, Folsom A.R., Boerwinkle E., Hoelscher D.M., Bray M.S. Gene-environment interaction and the GNB3 gene in the Atherosclerosis Risk in Communities Study. *International Journal of Obesity* (2006) In press.

Sherva R., Miller M., Pankow J., Hunt S., Boerwinkle E., Weder A., Curb D., Luke A., Mosley T., **Morrison A.**, Fornage M., Arnett D. A whole-genome scan for stroke or MI in Family Blood Pressure Program families. *Stroke* (2006) In press.

**Morrison A.C.**, Bare L.A., Chambless L.E., Ellis S.G., Malloy M., Kane J.P., Pankow J.S., Devlin J.J., Willerson J.T., Boerwinkle E. Coronary heart disease risk prediction using a genetic risk score: the Atherosclerosis Risk in Communities (ARIC) Study. *American Journal of Epidemiology* (2006) In press.

Chang Y.P., Kim J.D., Schwander K., Rao D.C., Miller M.B., Weder A.B., Cooper R.S., Schork N.J., Province M.A., **Morrison A.C.**, Kardia S.L., Quertermous T., Chakravarti A. The impact of data quality on the identification of complex disease genes: experience from the Family Blood Pressure Program. *European Journal of Human Genetics* (2006) 14(4):469-477

Hoogeveen R.C, Ballantyne C.M, Boerwinkle E., Bray M., Coresh J., Miles S., **Morrison A.**, Rhodes C.E., Sharrett A.R. Circulating Monocyte Chemoattractant Protein-1 (MCP-1) Levels and Risk for Peripheral Arterial Disease and Incident Coronary Heart Disease. The Atherosclerosis Risk in Communities (ARIC) Study. *Atherosclerosis* (2005) 183(2):301-307

**Morrison A.C.**, Boerwinkle E., Turner S.T., Ferrell R.E. Genome-wide linkage study of erythrocyte sodium-lithium countertransport. *American Journal of Hypertension* (2005) 18(5):653-656

**Morrison A.C.**, Cooper R., Hunt S., Lewis C.E., Luke A., Mosley T.H., Boerwinkle E. Genome-wide linkage for hypertension in non-obese African

Americans. The National Heart, Lung and Blood Institute Family Blood Pressure Program. *American Journal of Hypertension* (2004) 17(9): 834-838

**Morrison A.C.**, Brown A., Kardia S.L.R., Turner S.T., Boerwinkle E. Evaluating the context-dependent effect of family history of stroke in a genome scan for hypertension. *Stroke* (2003) 34(5):1170-1175

**Morrison A.C.**, Bray M.S., Folsom A.R., Boerwinkle E. ADD1 460W allele associated with cardiovascular disease in hypertensive individuals. *Hypertension* (2002) 39(6):1053-1057

**Morrison A.C.**, Ballantyne C.M., Bray M.S., Chambless L.E., Sharrett A.R., Boerwinkle E. Lipoprotein lipase polymorphism, but not apolipoprotein E, predicts risk of subclinical and clinical stroke in men. The Atherosclerosis Risk in Communities Study. *Genetic Epidemiology* (2002) 22(3):233-242

Huang Q., **Morrison A.C.**, Boerwinkle E. Linkage disequilibrium structure and its impact on the localization of a candidate functional mutation. *Genetic Epidemiology* (2001) 21(Suppl 1): S620-S625

**Morrison A.C.**, Doris P.A., Folsom A.R., Nieto F.J., Boerwinkle E. G-protein  $\beta 3$  subunit and  $\alpha$ -adducin polymorphisms and risk of subclinical and clinical stroke. The Atherosclerosis Risk in Communities Study. *Stroke* (2001) 32(4): 822-829

**Morrison A.C.**, Fornage M., Liao D., Boerwinkle E. Parental history of stroke predicts subclinical, but not clinical stroke. The Atherosclerosis Risk in Communities Study. *Stroke* (2000) 31(9): 2098-2102

**Morrison A.C.**, Brancati F., Folsom A.R., Smith L., Boerwinkle E.  $\beta 3$ -adrenergic receptor Trp64Arg polymorphism does not predict incident CHD or carotid intima-media thickness in a community-based sample of whites: the ARIC study. *Human Genetics* (1999) 105(4): 314-9

### **ONGOING RESEARCH SUPPORT:**

**NIH: R01 HL077491-01**

**PI:** Morrison, Alanna C.

**Title:** Genetic Etiology of Sodium-Lithium Countertransport

**Dates:** 04/01/05-03/31/09

A directed and comprehensive research program is outlined to follow-up linkage peaks from genome-wide scans for sodium-lithium countertransport (SLC) in replication samples of pedigrees. These studies involve association mapping to refine genomic regions of interest and identification of allelic variation influencing SLC as well as the risk of developing essential hypertension in cases and controls from 3 ethnic groups.

**Role:** Principal Investigator

**NIH: R37 HL051021**

**PI:** Boerwinkle, Eric

**Title:** Molecular Epidemiology of Essential Hypertension

**Dates:** 07/08/94-05/31/09

Characterize the role of specific candidate genes on inter-individual blood pressure variation using linkage and association analyses. In those genes determined to have a significant impact, use detailed association and cladistic analyses to identify candidate functional mutations. Finally, we will test the ability of those functional mutations to predict hypertension and coronary heart disease.

**Role:** Co-investigator

**NIH: U01 HL054481-11**

**PI:** Boerwinkle, Eric

**Title:** Family Blood Pressure Program – GENOA Network

**Dates:** 09/30/05-10/01/08

The Genetic Epidemiology Network of Arteriopathy (GENOA) study is a population-based cohort of hypertensive sibships studied over the last ten years to identify genes for hypertension and measures of target-organ damage.

**Role:** Co-investigator

**Service Contract: Celera Diagnostics**

**Title:** Novel Genes Influencing Cardiovascular Disease Risk in the Population-at-Large: The ARIC Study

**Dates:** 10/01/04-09/30/05

Investigate the contribution of putative functional mutation to risk of coronary heart disease and stroke.

**Role:** Analyst