

Bashira A. Charles, PhD

Center for Research on Genomics and Global Health
 Inherited Disease Research Branch
 National Human Genome Research Institute
 National Institutes of Health
 Building 12A, Room 4047, 12 South Drive, MSC 5635,
 Bethesda, MD 20892
 Phone: (301) 435-0137; Email: Charlesba@mail.nih.gov

Education

- 2008 PhD, University of Pittsburgh School of Nursing, Pittsburgh, PA
 Dissertation: "The Genetic Basis of Diabetic Retinopathy."
- 2004 Summer Genetics Institute, National Institute of Nursing Research,
 National Institutes of Health, Bethesda, MD, and Georgetown University,
 Washington, DC
- 2003 MSN, University of Pittsburgh School of Nursing, Pittsburgh, PA
- 1990 BSN, Temple University College of Allied Health Professions,
 Philadelphia, PA

Continuing Education

- 2012 Scientists Teaching Science pedagogy Course, National Institutes of
 Health, Bethesda, MD
- 2011 Advanced Gene Mapping Course, Rockefeller University, New York, NY
- 2011 Johns Hopkins University School of Medicine, Baltimore, MD
 Continuing Education: "39th Annual Pediatric Trends"
- 2010 Summer Institute in Statistical Genetics, University of Washington,
 Department of Biostatistics, Seattle, WA

Research Grants and Awards

- 2009-Present Intramural Research Training Award, Health Disparities Post-Doctoral
 Fellowship, National Human Genome Research Institute, National
 Institutes of Health, Bethesda, MD
- 2006-2008 Pre-doctoral Ruth L. Kirschstein Research Fellowship, Ruth L.
 Kirschstein National Research Service Award, National Institute of
 Nursing Research, National Institutes of Health, F31NR008970:
"Genetic Basis of Diabetic Retinopathy
 "\$40,323 per year (PI Bashira A. Charles)

2006-2008 American Nurses Foundation grant for Diabetes Complications: “Genes Implicated in Time to Onset and Severity of Diabetic Retinopathy”
\$3,500.00 (PI Bashira A. Charles)

NHGRI Intramural Research Program Projects

2012- present Advanced genetic analysis of dbGaP datasets for the study of complex diseases Protocol Number T-HG-0083: Associate Investigator

2012- present Investigation of Disease Variants in African Americans Using Ancestral Populations of Europe and West African Ancestry Protocol Number T-HG-0083 and Appendix A: Associate Investigator

Trans-NIH Collaborations

2012-Present Genome-wide Association Study of Benign Ethnic Neutropenia
NHLBI/NHI PI Mathew Hsieh
Lead NIH Analyst

Positions

2009-Present Post-Doctoral Research Fellow, National Human Genome Research Institute, Center for Research on Genomics and Global Health, Bethesda, MD. Mentor: Dr. Charles N. Rotimi

2009 Research Fellow, Symptom Management Laboratory, National Institute of Nursing Research, National Institutes of Health, Bethesda, MD.
Mentor: Dr. Raymond Dionne

2005-2008 Graduate Student Research Assistant, University of Pittsburgh, Pittsburgh, PA, Advisor: Dr. Yvette P. Conley

2003-2005 Graduate Student Research Assistant, Genetic Information for Testing-Diabetes (GIFT-D Project), University of Pittsburgh, Pittsburgh, PA
Advisor: Dr. Denise Charron-Prochownik

Teaching Experience

2012-present Instructor, Howard University Ophthalmology Department

2011 Speaker: Prince George’s Community College Fall Seminar
Audience Students interested in careers in math and science November, 17

2011 Guest Lecturer, “**Taking a Family Medical History**”, Howard University College of Medicine, Department of Ophthalmology

2011 Guest Lecturer, (1)“**Population Genetics**”, (2) “**Medical Genomics II**”(3) “**Introduction to Genetics**”, University of the District of Columbia, Washington, DC

- 2010 Speaker: Prince George's Community College Fall Seminar
Audience Students interested in careers in math and science October 14
Largo, MD
- 2006-2008 Guest Lecturer, "**Population Genetics**" Introduction to Genetics
Audience: graduate students. University of Pittsburgh, Pittsburgh, PA
- 2005 Clinical Instructor, University of Pittsburgh, School of Nursing, Pittsburgh,
PA. Full semester course: Taught junior level nursing students pediatric
medical-surgical clinical.

Clinical Experience:

- 2003-2005 Pediatric Nurse Practitioner, Eastside Pediatrics, Pittsburgh, PA
- 2002-2003 Pediatric Staff Nurse, Medical Staffing Network, Pittsburgh, PA
- 2001-2002 Graduate Student Assistant, School of Nursing, University of Pittsburgh,
Pittsburgh, PA
- 1999-2001 Staff Nurse, Gastroenterology Lab, Gastroenterology Department
Children's Hospital of Pittsburgh, Pittsburgh, PA
- 1996-1999 Staff Nurse, Pediatric Intensive Care Unit, Children's Hospital of
Pittsburgh, Pittsburgh, PA
- 1996 Staff Nurse, Intensive Care Unit, Forbes Regional Hospital, Monroeville,
PA
- 1993-1995 Clinical Coordinator, Digestive Disorders Center, University of Pittsburgh
Medical Center, Pittsburgh, PA
- 1991-1993 Critical Care Nurse, Liver Transplant Intensive Care Unit, University of
Pittsburgh Medical Center, Pittsburgh, PA
- 1990-1991 Staff Nurse, Coronary Care Unit, Albert Einstein Medical Center,
Philadelphia, PA
- 1989-1990 Student Intern, Albert Einstein Medical Center, Philadelphia, PA

Licensure and Certification

- 2003-2007 Pediatric Nurse Practitioner
- 1992-1995 Certified Critical Care Registered Nurse (CCRN)
- 1990-2011 Registered Nurse, Pennsylvania

Honors

- 2012 Alumni Profile. (2012) "Opportunities Realized", Pitt Nurse, Fall 2012.
- 2012 Genome Recognition of Employee Accomplishments and Talents (GREAT) Award
- 2012 Travel Award Advanced Gene Mapping Course, Rockefeller University, New York, NY
- 2008 Margaret E. Wilkes Scholarship, University of Pittsburgh, Pittsburgh, PA
- 2008 Zalon, Margarete L. (2008). "*Highlighting ANF Scholars: Bashira A. Charles, genetic researcher*". The American Nurse, July/August: page 7
- 2006 Ruth Perkins Kuehn Award from Sigma Theta Tau, Eta Chapter, Pittsburgh, PA
- 2004-2005 Cameos of Caring Endowed Nursing Scholarship, University of Pittsburgh, Pittsburgh, PA
- 2004-2005 Doris and Davina Gosnell Endowed Nursing Scholarship, University of Pittsburgh, PA
- 2001-2004 University of Pittsburgh Minority Scholarship, Pittsburgh, PA
- 2002 Jewish Healthcare Foundation/Coro Fellow, Pittsburgh, PA

Service

- 2012 Judge, Postbac Spring Research Festival, National Institutes of Health
- 2012 Volunteer; Take Your Child to Work Day National Human Genome Research Institute
- 2011-present Scientists Committed to Science: A Multi-disciplinary Research Network Organizes, manages, and provides leadership of this subcommittee of the Black Scientists Network
- 2011 Seventh Annual NIH Graduate Student Symposium, Judge
- 2010 National Human Genome Research Institute Faculty Seminar Series, Organizer
- 2010 Acting Coordinator of the NIH Lecture Series at Prince George's Community College

2009 – 2010	Volunteer Mentor and Judge, Society for the Advancement of Hispanics/Chicanos & Native Americans in Science SACNAS National Conference, October
2009	Moderator Community College Day National Institutes of Health, Friday September 25
2008	Pittsburgh Black Nurses in Action, Volunteer
2008	Healthy Black Family Project, Volunteer
2000-2008	Crohns & Colitis Foundation of America, Volunteer

Professional Memberships and Activities

2012-present	American Association for the Advancement of Science
2012-present	American Diabetes Association
2012-present	Women of Color Research Network
2011-present	International Society of Hypertension in Blacks
2010-present	Genome Trainee Advisory Committee
2010-present	African Society of Human Genetics
2008-present	American Society of Human Genetics

Invited Referee for Peer-Reviewed Journals

2010-2012	Reviewed for the following journals: <i>Annals of Internal Medicine</i> ; <i>DNA and Cell Biology</i> , <i>Experimental Eye Research</i> , <i>Recent Patents on Cardiovascular Drug Discovery</i> , <i>Current Eye Research</i>
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Conference Presentations and Invited Talks

International

1. International Society on Hypertension in Blacks (ISHIB): "Genetic Studies of Cardiovascular Risk in the African Diaspora." Boston, Massachusetts July 8-10, 2011 (Talk)
2. The Joint meeting of the African Society of Human Genetics (AfSHG) and Southern African Society of Human Genetics (SASHG): "Fine-Mapping Identifies Novel Susceptibility Genes for Type 2 Diabetes in West Africans." Cape Town, South Africa March 6-9, 2011 (Poster)

3. The American Society of Human Genetics: 60th Annual Meeting “Solute carrier 2 (SLC2A9) on Chromosome 4 is associated with uric acid in African Americans.” Washington, D.C. November 5, 2010 (Platform Talk)
4. The American Society of Human Genetics: 58th Annual Conference “NPY and ADORA2a Genes, Incidence and Prevalence of Proliferative Diabetic Retinopathy.” Philadelphia, Pennsylvania, November 13, 2008 (Poster)
5. International Society of Nurses in Genetics: 20th Annual Conference “PCR to Real-Time PCR” Bristol, UK May 18, 2007 (Talk)
6. International Society of Nurses in Genetics: 20th Annual Conference “ADORA2 in Type 1 Diabetes” Bristol, UK May 18, 2007 (Poster)
7. International Society of Nurses in Genetics: 19th Annual Conference “Using HapMap to Select Haplotype Tagging SNPs.” New Orleans, LA October 9, 2006. (Talk)

Local/Regional

8. 19th Annual Roger P. Mason Sr., MD Memorial Glaucoma Symposium “The Genetics of Glaucoma.” Washington, DC September 21, 2012 (Invited Talk)
9. National Institute of Diabetes and Digestive and Kidney Diseases’ Diabetes and Metabolism Research Interest Group “The genetic influence on health associated with adenosine triphosphate and purine metabolism.” Bethesda, MD, January 24, 2011 (Invited Talk)
10. 2010 Research Festival: SLC2A9 Gene Influences Uric Acid Level in a Genome-wide Association Study of African Americans. Bethesda, MD October 5-6, 2010 (Poster)
11. A Tribute to: Ruth L. Kirschstein, M. D. Inspiring the Best in Others: “Genetic Epidemiology of Uric Acid in African-Americans.” Bethesda, MD May 17, 2010 (Poster, Abstract Page 13, Program Abstracts Booklet)
12. National Human Genome Research Institute, Division of Intramural Research, Biannual Meeting and Site Visit: CRGGH Working Group: “Genetics of Diabetic retinopathy in Europeans, West Africans, and Chinese Ancestry Populations.” Bethesda, MD November 2009 (Poster)
13. National Human Genome Research Institute Scientific Retreat: “Variants of the adenosine A2a receptor (ADORA2A) Gene is associated with proliferative diabetic retinopathy in a cohort of patients with Type 1 Diabetes” Gettysburg, PA November 17-18, 2009 (Poster)
14. Council for the Advancement of Nursing Science: 2009 Special Topics Conference, Technology Genetics and Beyond: Research Methodologies of the Future. Washington, DC October 14, 2009 (Poster)
15. The Genetic Basis of Diabetic Retinopathy, National Institute of Nursing Research, Bethesda, MD April 1, 2009 (Invited Job Talk)

16. The Genetic Basis of Diabetic Retinopathy, National Institute of Nursing Research, Bethesda, MD summer, 2007 (Invited Job Talk)
17. Eastern Nursing Research Society: 19th Annual Scientific Sessions “Understanding the Use of HAPMAP to Select Haplotype Tagging SNPs for Genetic Research” Providence, RI April 13, 2007 (Talk)
18. Eastern Nursing Research Society: 18th Annual Scientific Sessions “Perceived Therapeutic Efficacy Scale: Exercise Version Used in Preeclampsia” Cherry Hill, NJ April 22, 2006 (Talk)
19. Teaching Excellence Fair: “Pilot and Feasibility Study to Develop and Implement Clinical Application Lecture to Enhance Introductory Genetics Course Using Tegrity and Out of Classroom on Demand Viewing” J.W. Connolly Ballroom-Alumni Hall, Pittsburgh, PA October 27, 2004 (Talk)
20. Voices of Pitt Nursing: Scientific Sessions Genetic Basis of Diabetic Retinopathy. Saturday May 15, 2004 (Poster)
21. Crohns & Colitis Foundation of America Conference: Patient & Family IBD Educational Practice: Panel for Adults “Kids with IBD and Parents.” Presenters: Bashira Charles, BSN, Linda St. Clair, CCF Board Member & Richard Wheland, LSW. Pittsburgh, PA. October 20, 2001 (Talk)

Published Abstracts

1. **Charles BA**, Orchard TJ, Sereika SM, Miller RG, Dorman JS, Gorin MB Ferrell RE, Conley Y P (2008). “NPY and ADORA2a Genes, Incidence, and Prevalence of Proliferative Diabetic Retinopathy” The American Society of Human Genetics: 58th Annual Meeting, Philadelphia, PA
2. **Charles BA**, Sereika SM, Conley YP, Ferrell R, Miller R, Dorman JS, Orchard TJ (2008). “The ADORA_{2A} Gene, is Associated with Incidence and Prevalence of PDR in Type 1 Diabetes” Diabetes: Late Breaking Abstract Book 68th Scientific Sessions, San Francisco, CA
3. Dorman JS, Siminerio LM Conley Y, Charron-Prochownik D, Manthei E, Feathers A, **Charles B** (2006). Genetics and Diabetes: Online Educational Modules for Health Professionals. American Association of Diabetes Educators
4. Siminerio L, Dorman D, Ryan CM, Sereika S, Schmitt P, **Charles B**, Charron-Prochownik D (2006). Genetic Information for Testing- Diabetes (GIFT-D): Effects of an Education/Counseling Programs for Children. American Diabetes Association
5. Charron-Prochownik D Siminerio LM, Ryan C, Sereika S, Schmitt P, **Charles B**, Dorman J (2005). Genetic Information for Testing-Diabetes (GIFT-D): Education/Counseling Program for Children, Parents and Health Professionals Diabetes: Abstract Book 65th Scientific Sessions. San Diego, CA

6. Dorman JS, Siminerio LM, Conley Y, Charron-Prochownik D, Manthei E, Feathers A, **Charles B** (2005). Genetics and Diabetes: Online Educational Modules for Health Professionals (Abstract) American Association of Diabetes Educators

Publications

1. **Charles BA**, Jones LS, (2012): Invited Chapter: **Adenosine A2A receptor genes and diabetic retinopathy**, Handbook of Diet, Nutrition and the Eye, Elsevier, Kings College London.
2. Jones LS, **Charles BA** (2012): Chapter 52: **Corneal Conditions Associated with Glaucoma** Copeland and Afshari Principles and Practice of Cornea, Jaypee Brothers Medical Publisher, New Delhi, India.
3. Tekola AF, Doumatey A, Huang H, Zhou J, **Charles B**, Erdos M, Adeleye J, Balogun W, Fasanmade O, Johnson T *et al*: **Genome-wide Associated Loci Influencing Interleukin (IL)-10, IL-1Ra, and IL-6 levels in African Americans**. *Immunogenetics* 2012, 64(5):351-359.
4. **Charles BA**, Doumatey A, Huang H, Zhou J, Chen G, Shriner D, Adeyemo A, Rotimi CN: **The Roles of IL-6, IL-10, and IL-1RA in Obesity and Insulin Resistance in African Americans**. *Journal of Clinical Endocrinology & Metabolism* 2011, 96(12):E1-E5.
5. Chen G, Ramos E, Adeyemo A, Shriner D, Zhou J, Doumatey A, Norman G, Herbert A, Bentley A, Xu H, **Charles B**, Christman M, Rotimi C: **UGT1A1 is a Major Locus Influencing Bilirubin Levels in African Americans**. *European Journal of Human Genetics* 2011, 20(4):463-468.
6. **Charles B**, Shriner D, Doumatey A, Chen G, Zhou J, Huang H, Herbert A, Gerry N, Christman M, Adeyemo A *et al*: **A Genome-wide Association Study of Serum Uric Acid in African Americans**. *BMC Medical Genomics* 2011, 4(1):17.
7. **Charles BA**, Conley YP, Chen G, Miller RG, Dorman JS, Gorin MB, Ferrell RE, Sereika SM, Rotimi CN, Orchard TJ: **Variants of the Adenosine A2A Receptor Gene Are Protective against Proliferative Diabetic Retinopathy in Patients with Type 1 Diabetes**. *Ophthalmic Research* 2011, 46(1):1-8.
8. Meilleur KG, Doumatey A, Huang H, **Charles B**, Chen G, Zhou J, Shriner D, Adeyemo A, Rotimi C: **Circulating Adiponectin Is Associated with Obesity and Serum Lipids in West Africans**. *J Clin Endocrinol Metab* 2010, 95(7):3517-3521.
9. **Charles BA: The Genetic Basis of Diabetic Retinopathy. Ph.D. Manuscript**. Pittsburgh: University of Pittsburgh; 2009.
10. Manthei ER, Siminerio LM, Conley Y, Charron-Prochownik D, Feathers AS, **Charles BA**, Dorman JS: **Genetics and Type 1 Diabetes: Online Resources for Diabetes Educators**. *The Diabetes Educator* 2004, 30:961-971.

