

Ayo Priscille DOUMATEY, Ph.D.

CONTACT INFORMATION

National Institutes of Health
Center for Research on Genomics and Global Health
Building 12A, Room 4047
12 South Drive, MSC 5635
Bethesda, MD 20892-5635
E-mail: doumateya@mail.nih.gov
Telephone: +1 (301) 435-0195
Fax: +1 (301) 451-5426

EDUCATION

2008: Ph.D., Department of Microbiology, Howard University, Washington DC
Thesis: "Polymorphisms in Inflammatory Pathway Markers and Their Association with Obesity and Insulin Resistance in Populations of the African Diaspora"

1999: Graduate Certificate in Quality Assurance and Quality Control, School of Pharmacy, University Claude Bernard, Lyon, France.

1998: Master of Science in Biochemistry/Minor: Cellular and Molecular Endocrinology, University Claude Bernard, Lyon, France.

1997: Bachelor of Science in Biochemistry/Minor in Microbiology, University Claude Bernard, Lyon, France.

EXPERIENCE

2012-Present: Scientist IRB member, National Human Genome Research Institute, National Institutes of Health, Bethesda, MD.

2008- Present: Research Fellow, Center for Research in Genomics and Global Health, National Human Genome Research Institute, National Institutes of Health, Bethesda, MD. Supervisor: Dr. Charles Rotimi.

2000-2008: Research Laboratory Manager, National Human Genome Center, Howard University, Washington DC.

1999: Quality Assurance/ Quality Control Analyst, Institute Pasteur-Merieux Connaught, Marcy-l'Etoile, France.

1998-1999: Quality Assurance Consultant, Medical and Clinical Laboratory of Venissieux, Venissieux, France

1997: Research Assistant (Internship), Institut National de la Santé et de la Recherche Medicale (INSERM), Lyon, France.

1996: Laboratory Technician, University Claude Bernard, Lyon, France

MEMBERSHIPS AND AFFILIATIONS

2009- Member, African Society of Human Genetics
2002-2003 Member, American Society of Human Genetics

2011- Member, Obesity Society

LANGUAGES

French Reading- Advanced; Writing- Advanced; Speaking-Fluent

SELECTED PUBLICATIONS (20 of 32):

1. **Ayo P. Doumatey**, Amy R. Bentley, Jie Zhou, Hanxia Huang, Adebawale Adeyemo, Charles N. Rotimi. ***Paradoxical Hyperadiponectinemia is Associated with the Metabolically Healthy Obese (MHO) Phenotype in African Americans.*** J Endocrinol Metab. 2012 April; 2(2):51-65
2. Shriner D, Herbert A, **Doumatey AP**, Zhou J, Huang H, Erdos MR, Chen G, Gerry NP, Christman MF, Adeyemo A, Rotimi CN. ***Multiple loci associated with renal function in African Americans.*** PLoS One. 2012; 7(9): Epub 2012 Sep 13.
3. Adeyemo A, Bentley AR, Meilleur KG, **Doumatey AP**, Chen G, Zhou J, Shriner D, Huang H, Herbert A, Gerry NP, Christman MF, Rotimi CN. ***Transferability and Fine Mapping of genome-wide associated loci for lipids in African Americans.*** BMC Med Genet. 2012 Sep 21; 13(1):88. [Epub ahead of print]
4. Bentley AR, **Doumatey AP**, Chen G, Huang H, Zhou J, Shriner D, Jiang C, Zhang Z, Liu G, Fasanmade O, Johnson T, Oli J, Okafor G, Eghan BA Jr, Agyenim-Boateng K, Adeleye J, Balogun W, Adebamowo C, Amoah A, Acheampong J, Adeyemo A, Rotimi CN. ***Variation in APOL1 Contributes to Ancestry-Level Differences in HDLc-Kidney Function Association.*** Int J Nephrol. 2012; 2012: 748984. Epub 2012 Sep 2.
5. **Doumatey, AP** et al. ***Circulating Adiponectin is associated with Renal Function Independent of Age and Serum Lipids in West Africans.*** Int J Nephrol. 2012; 2012:730920. Epub 2012 Aug 22
6. **Doumatey AP**, Chen G, Tekola Ayele F, Zhou J, Erdos M, Shriner D, Huang H, Adeleye J, Balogun W, Fasanmade O, Johnson T, Oli J, Okafor G, Amoah A, Eghan BA, Agyenim-Boateng K, Acheampong J, Adebamowo C, Gerry NP, Christman MF, Adeyemo A, Rotimi CN. ***C-reactive protein (CRP) promoter polymorphisms influence circulating CRP levels in a genome-wide association study of African Americans.*** Hum Mol Genet. 2012 Apr 18.
7. Tekola Ayele F, **Doumatey A**, Huang H, Zhou J, Charles B, Erdos M, Adeleye J, Balogun W, Fasanmade O, Johnson T, Oli J, Okafor G, Amoah A, Eghan BA Jr, Agyenim-Boateng K, Acheampong J, Adebamowo CA, Herbert A, Gerry N, Christman M, Chen G, Shriner D, Adeyemo A, Rotimi CN. ***Genome-wide associated loci influencing interleukin (IL)-10, IL-1Ra, and IL-6 levels in African Americans.*** Immunogenetics. 2012 May; 64 (5):351-9. Epub 2011 Dec 29.
8. 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.*** J Clin Endocrinol Metab. 2011 Dec; 96 (12):E2018-22. Epub 2011 Sep 28.
9. 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 Jul; 95(7):3517-21. Epub 2010 Apr 9.
10. **Doumatey AP**, Lashley KS, Huang H, Zhou J, Chen G, Amoah A, Agyenim-Boateng K, Oli J, Fasanmade O, Adebamowo CA, Adeyemo AA, Rotimi CN. ***Relationships among obesity, inflammation, and insulin resistance in African Americans and West Africans.*** Obesity (Silver Spring). 2010 Mar; 18(3):598-603. Epub 2009 Oct 1.

11. Chen G, Ramos E, Adeyemo A, Shriner D, Zhou J, **Doumatey AP**, Huang H, Erdos MR, Gerry NP, Herbert A, Bentley AR, Xu H, Charles BA, Christman MF, Rotimi CN. ***UGT1A1 is a major locus influencing bilirubin levels in African Americans.*** Eur J Hum Genet. 2012 Apr; 20(4):463-8. Epub 2011 Nov 16.
12. Chambers JC, ..., Doumatey A et al. ***Genome-wide association study identifies loci influencing concentrations of liver enzymes in plasma.*** Nat Genet. 2011 Oct 16;43(11):1131-8 (*Collaborative study with several consortia including CRGGH*)
13. International Consortium for Blood Pressure Genome-Wide Association Studies, Ehret GB, Munroe PB, Rice KM, Bochud M, Johnson AD, Chasman DI, ..., **Doumatey AP** et al. ***Genetic variants in novel pathways influence blood pressure and cardiovascular disease risk.*** Nature. 2011 Sep 11; 478 (7367):103-9. (*Collaborative study with several consortia including CRGGH*)
14. Faruque MU, Chen G, **Doumatey A**, Huang H, Zhou J, Dunston GM, Rotimi CN, Adeyemo AA. ***Association of ATP1B1, RGS5 and SELE polymorphisms with hypertension and blood pressure in African-Americans.*** J Hypertens. 2011 Oct; 29(10):1906-12.
15. Fox ER, Young JH, Li Y, Dreisbach AW, Keating BJ, Musani SK, Liu K, Morrison AC, Ganesh S, Kutlar A, Ramachandran VS, Polak JF, Fabsitz RR, Dries DL, Farlow DN, Redline S, Adeyemo A, Hirschorn JN, Sun YV, Wyatt SB, Penman AD, Palmas W, Rotter JI, Townsend RR, **Doumatey AP** et al. ***Association of genetic variation with systolic and diastolic blood pressure among African Americans: the Candidate Gene Association Resource study.*** Hum Mol Genet. 2011 Jun 1; 20(11):2273-84. Epub 2011 Mar 4.
16. Charles BA, Shriner D, **Doumatey A**, Chen G, Zhou J, Huang H, Herbert A, Gerry NP, Christman MF, Adeyemo A, Rotimi CN. ***A genome-wide association study of serum uric acid in African Americans.*** BMC Med Genomics. 2011 Feb 4; 4:17.
17. Ramos E, Chen G, Shriner D, **Doumatey A**, Gerry NP, Herbert A, Huang H, Zhou J, Christman MF, Adeyemo A, Rotimi C. ***Replication of genome-wide association studies (GWAS) loci for fasting plasma glucose in African-Americans.*** Diabetologia. 2011 Apr; 54(4):783-8. Epub 2010 Dec 25.
18. Sumner AE, Zhou J, **Doumatey A**, Imoisili OE, Amoah A, Acheampong J, Oli J, Johnson T, Adebamowo C, Rotimi CN. ***Low HDL-Cholesterol with Normal Triglyceride Levels is the Most Common Lipid Pattern in West Africans and African Americans with Metabolic Syndrome: Implications for Cardiovascular Disease Prevention.*** CVD Prev Control. 2010 Sep 1;5(3):75-80.
19. Chen G, Shriner D, Zhou J, **Doumatey A**, Huang H, Gerry NP, Herbert A, Christman MF, Chen Y, Dunston GM, Faruque MU, Rotimi CN, Adeyemo A. ***Development of admixture mapping panels for African Americans from commercial high-density SNP arrays.*** BMC Genomics. 2010 Jul 5; 11:417
20. Adeyemo A, Chen G, Zhou J, Shriner D, **Doumatey A**, Huang H, Rotimi C. ***FTO genetic variation and association with obesity in West Africans and African Americans.*** Diabetes. 2010 Jun; 59(6):1549-54. Epub 2010 Mar 18

MENTORING

2009-2011: Mentored and supervised a Pre-doctoral IRTA in the laboratory. Actively participated in the design, implementation, and troubleshooting of mentee's dissertation experiments; trained mentee to genomics and basic statistical tools. Reviewed and edited mentee's dissertation document and coached mentee to orally defend her dissertation.

2010-2011: Mentored a Post-Baccalaureate IRTA for a year – trained mentee to molecular laboratory techniques, good laboratory practices (GLP), quality control, experimental design, and data cleaning. Supervised mentee to conduct a study; data generated was presented at the NIH Spring Festival 2011 and I was mentee's preceptor for this presentation.

Summer 2011: Mentored a high School student for 6 weeks- trained mentee to biological and genetic notions as well as molecular techniques such as DNA/RNA extraction, RT-PCR; supervised mentee to conduct a gene expression study, which was presented at the NIH Summer Festival 2011 and I was mentee's preceptor for the presentation.

CLASS INSTRUCTIONS

2005-2006 Medical Microbiology Labs, Dental and Medical course
Graduate Teaching Program, Howard University, Washington DC

Fall 2006 Cellular and Molecular Immunology, Graduate course in Microbiology
Howard University, Washington DC

CONTINUING EDUCATION

Certificate of Clinical Research Curriculum (CCRC), December 2011, Clinical Center, NIH

Introduction to Principles and Practice of Clinical Research, Fall-Spring 2010/2011, Clinical Center. NIH

Ethical and Regulatory Aspects of Clinical Research, Fall 2010, NIH Clinical Center, Department of Bioethics.

PRESENTATION

Oral Presentation

Adipokines, Adiposity and Insulin Resistance in Populations of African Descent: The 6th Meeting of the African Society of Human Genetics, Yaoundé, Cameroon (March 12th-15th, 2009)

Posters

The 62nd Annual Meeting of American Society of Human Genetic (ASHG), San Francisco, CA Nov. 6-10, 2012 "A missense mutation in exon 2 of Adiponectin receptor 2 (ADIPOR2) is associated with serum insulin in African-American overweight and obese subjects"

The 30th Annual Scientific Meeting of the Obesity Society, San Antonio, TX, Sep.20-24, 2012. "Differential Expression of SOCS7, PDIA3, TBRG1, and COL4A2 genes in Omental Adipose Tissue of Obese Diabetic African Americans"

The 61st Annual Meeting of American Society of Human Genetic (ASHG), Montreal, Oct.11-15, 2011 “Whole genome gene expression profile of omental adipose tissue in obese Type 2 diabetic African Americans.”

The 60th Annual Meeting of American Society of Human Genetic (ASHG), Washington DC, Nov.2-6, 2010 “Genetic Variants in the promoter region of the gene encoding C-Reactive Protein (CRP) are associated with serum CRP levels in African Americans”

NIH Research Festival, October 5-8, 2010, Bethesda, MD“Circulating Resistin is associated with Biomarkers of Inflammation in Populations of African ancestry”.

The 137th annual meeting and exposition of the American Public Health Association (APHA), Philadelphia, PA. Nov. 7- 12, 2009. “Understanding the Genetic Basis of the Association between Adiponectin, Obesity and Cardiovascular Diseases in West Africans and African Americans”

The 27th Annual Scientific Meeting of the Obesity Society, Washington DC, Oct.24-28, 2009. “The IL6 -174 G/C Polymorphism is Associated with Serum Triglycerides Independently of Obesity in African Americans”

The 59th Annual Meeting of American Society of Human Genetic (ASHG), Honolulu, Oct.20-24, 2009. “Genome-wide association study identified novel susceptibility loci for Adiponectin in a population-based cohort of African Americans”

Meeting Attendance

- **The 28th Annual Scientific Meeting of the Obesity Society, San Diego, CA, Oct.8-12, 2010.**
- **The 4th Annual Biospecimen Research Network (BRN) Symposium, Bethesda, MD, Mar. 28-29th, 2011**

OTHER QUALIFICATIONS

Knowledge of Microsoft office suite, Windows 95/98/XP

Expertise with the following:

- **ELISA** (Enzyme linked Immunosorbent Assay, **RIA** (Radio Immunoassay), **Bioplex 200** (BioRad)
- **HPLC, GC**
- **Refractometry, Spectrometry, Protein assays**
- Current Molecular Biology techniques (**DNA/RNA extraction and quantification, DNA amplification, PCR, Proteins and Nucleic Acids purification, gene expression, Genotyping** – *Sequenom, Drug Metabolizing Enzymes and Transporter (DMET) Affymetrix- Sequencing* etc.)
- **Electrophoresis, Immunoblotting methods.**
- **Clinical, Medical and Environmental Chemistry.**
- **Microbiology Techniques** (Identification, speciation, detection, bacterial culture)
- **Assay and equipment troubleshooting.**
- **Assay Optimization**
- **Laboratory equipment and consumables procurement (SOW, sole source justification etc.)**

- **Laboratory management**
- **Projects management and coordination**

MISCELLANEOUS

Review editor: Frontiers in Applied Genetic Epidemiology (2011-present)

Volunteer: Translator for French speaking patients, **Social work department, Clinical Center, NIH**

Children's Inn Outreach for academic year 2010-11: Taught basic Science course to inpatients and their siblings. **The children's Inn, NIH.**