

CARTER CLINTON

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PROFESSIONAL SUMMARY

Genetic anthropologist with proven performance in DNA extraction and analysis as well as drafting corresponding technical and research documents. Extremely knowledgeable in overall laboratory function and maintenance. Strong public speaker and research communicator to scientific and general audiences. Experienced in biological anthropology, forensic anthropology, molecular biology, and human genetics.

SKILLS

Experience in Sanger sequencing, RNA isolation, Proficient in DNA/ aDNA extraction, PCR/qPCR, published researcher, genotyping, protein isolation, Western Blot, Southern Blot, big data statistical analyses, bioinformatic analyses, X-ray fluorescence spectrometry, Illumina MiSeq DNA sequencing.

EDUCATION

2014- Current Doctoral Candidate
Biology Department
Howard University

2012 Bachelor of Science
Biology Department
Benedict College

DISSERTATION RESEARCH

New York African Burial Ground Grave Soil analysis

My research reconstructs aspects of identity and lifestyles of the historic NYABG population. I'm analyzing 92 grave soil samples collected from skeletal remains. Soil chemistry analyses are performed to explore the environment of 17th century Lower Manhattan and the predominant diets of individuals in the burial ground. Bacterial DNA analyses are being performed to identify all human associated microbes, visualizing the human microbiome of the inhabitant, and bacterial disease pathogen to assign cause of death by infectious disease. Geospatial analyses are being performed to generate a digital representation of the burial ground and to visualize elemental and bacterial patterns within the site. Results of this research will give us insights about the ancestors of present-day African Americans and the existence of enslavement in NYC.

RESEARCH AND LEADERSHIP EXPERIENCE

May 2019 – June 2019 **Pre-health Summer Enrichment program**

Howard University, Washington, DC

Taught Kaplan style class for MCAT and DAT students

May 2018 – Sept 2018 **Intramural Research Training Award Fellow, National Institutes of Health**

Bethesda, Maryland

Dry Lab: Bioinformatic candidate gene approach to exploring causes of ectopia cordis

Wet Lab: Gene expression experiments with zebra fish model

- Dec 2017 – Current **Assistant Curator, W. Montague Cobb Research Laboratory**
Howard University, Washington, DC
 Assist director in day-to-day duties; facilitate over 7 different research projects; manage 21 undergraduate researchers; schedule and accommodate interns, visiting researchers and collaborators
- July 2017 **Finding our Roots**
Penn State University, State College
 Presented genetics/ genealogy talk to summer session students
- April 2017 **Graduate Researcher and Logistics Coordinator for the African Genomic Diversity Workshop**
Howard University, W. Montague Cobb Research Lab
 Directed responsibilities and for over 30 students and managed the flow of DNA and data collection
- 2016 – Current **Teaching Assistant**
Howard University, Department of Biology
 Aided instruction during lecture and laboratory section of Biological Anthropology (Fall semesters) Human Diversity and Evolutionary Genetics (Spring Semesters)
- Fall 2016 **Teaching Assistant**
Howard University, Department of Biology
 Instructed students during the laboratory section of Genetics
- January 2016 **Department of Energy Researcher**
Howard University, Washington, DC
 Discover and categorize unknown microbes from site of plutonium radiation in Hanford, Washington
 Dr. Courtney Robinson, Principal Investigator
- Summer 2015 **SMDEP (Summer Medical & Dental Education Program) Mentor**
Howard University, Washington, DC
 Advise and organize undergraduate students in research detailing health disparities in the Montague Cobb Collection
 Dr. Fatimah Jackson, Principal Investigator
- March 2015 **Historically Underrepresented Persons or Groups in the Grand Canyon Region**
Grand Canyon National Park, Arizona
 Compile archival documents revealing population diversity in the Grand Canyon region
 Dr. Fatimah Jackson, Principal Investigator
- 2014 – Current **Research Assistant at W. Montague Cobb Research Lab**
Howard University Washington, DC
 Assess and record analysis of grave soil samples of the New York African Burial Ground
 Dr. Fatimah Jackson, Principal Investigator

GRANTS AND AWARDS

- September 2019 Travel Award for competing in Edward Bouchet 3MT Competition
- August 2019 Edmund & M. Pioletau Scholarship
- June 2019 AAAS/Science Program for Excellence in Science
- March 2019 Cosmos Scholar with distinction

November 2018	Sigma Xi Student Research Conference Award for Superior Presentation in Anthropology
April 2018	Featured in <i>American Scientist</i> Received Howard University "Graduate Student of the Year" Award
March 2018	Honorary speaker at Sigma Xi: Pathway to the Future Reception
November 2017	Sigma Xi Student Research Conference Award for Superior Presentation in Anthropology
June 2017	Just- Julian Assistantship National Geographic Explorer Grant Sigma Xi Grant-in-aid

ADDITIONAL RESEARCH PROJECTS

July 2019	Petrous bone extraction and sequencing of an historic African American population <i>Howard University, Washington, DC</i> Dr. Fatimah Jackson, Principal Investigator
April 2017	African Genomic Diversity Database <i>Howard University, Washington, DC</i> Dr. Fatimah Jackson, Principal Investigator
May 2015	What is CRISPR? <i>Howard University, Washington, DC</i> Acquisition of in-depth knowledge of CRISPR/ Cas9 including its uses Dr. Hemayet Ullah, Principal Investigator
December 2012	The Future of Genetic Engineering in Medicine with focus on Pharmacodynamics <i>Benedict College, Columbia, SC</i> Exploring the uses and benefits of tailor-made medicine Dr. Larry Lowe, Mentor

PUBLICATIONS

Dec 2019	Clinton, C., C.M. Duncan, R.K. Shaw, L. Jackson, F.L.C. Jackson Trace metal analysis reveals vegetative diet of New York African Burial Ground population and modern contaminant exposure. <i>Nature Research: Scientific Reports</i>
May 2015	Elizondo, D, L.M. Fernando, E. Oliver, K. Clinton, N. Retland, H. Paturault & H. Ullah. 2015. Welcome to the Brave New World: CRISPR Mediated Genome Editing- pathway to Designer Babies Bangladesh Association for Plant Tissue Culture and Biotechnology (BAPTC&B) (25):1
<i>In prep</i>	Clinton, C. and F.L.C. Jackson. Historical overview, current research, and emerging bioethical guidelines in researching the New York African Burial Ground Detection of human microbiome signatures of 400-year old New York African Burial Ground soil samples

EXTERNAL TRAINING

July 2018	Summer Teachers and Scholars Institute (STSI) Columbia University
February 2017	Radiation Certification Environmental Science and Technology Department, University of Maryland College Park
Spring 2017	Soil Microbial Ecology Environmental Science and Technology Department, University of Maryland Forensic Molecular Biology The George Washington University, Mount Vernon Campus, DC
Fall 2016	Fundamentals of Forensic Science The George Washington University, Mount Vernon Campus, DC
June 2016	Data science bootcamp Penn State University

MENTORSHIP AND STUDENT TRAINING

Babajide Owosela	May 2019 Graduate. Post- baccalaureate researcher at NIH-NHGRI.
Shyan Organ	May 2019 Graduate. Traveler's Summer Research Fellowship, Cornell University.
Nancy Varice	May 2019 Graduate. Teach for America in Mobile, Alabama.
Ugonna Nwannunu	May 2019 Graduate. Post- baccalaureate research at NIH-NCI.
Imade Ojo	May 2019 Graduate. Researcher at GSK.
Jade Dickenson	May 2021. Stanford Summer Research Program (2019)

CONFERENCE PRESENTATIONS

October 2019	Urgency for diversity in genomic research -Plenary Panel MABIG (Mid-Atlantic Bioanthropology Interest Group) Virginia Commonwealth University, VA
September 2019	You Must Look to the Past to Know Where You're Going: Insights from the New York African Burial Ground Edward A. Bouchet 3MT Competition Howard University, DC
May 2019	Deciphering the lifestyles of the 17th and 18th century New York African Burial Ground population CSAAD (The Center for the Study of Africa and the African Diaspora) & ASWAD (The Association for the Study of the Worldwide African Diaspora) New York University, NYC
March 2019	Spatial distribution of trace metals found in the New York African Burial Ground using XRF technology American Association for Physical Anthropologists Cleveland, Ohio
February 2019	Spatial distributions of bacteria and trace metals found in the NY African Burial Ground American Association for the Advancement of Science Washington, DC
November 2018	Trace metal variation of 17th and 18th Century New York African Burial Ground soil samples using XRF technology Sigma Xi, The Scientific Research Honor Society - Top Presenter Award

- San Francisco, CA
- October 2018 **Reconstructing the lives of the 17th and 18th Century New York African Burial Ground population**
Mid-Atlantic Biological Anthropology Conference
Virginia Commonwealth University, Va
- November 2017 **Creation of a genomic database for the 17th and 18th Century New York African Burial Ground Population**
Sigma Xi, The Scientific Research Honor Society - Top Presenter Award
Cary, North Carolina
- July 2017 **Creation of a Genomic Database from New York African Burial Ground Grave Soil Samples**
Society for Molecular Biology and Evolution Conference
Austin, Texas
- May 2017 **Creation of a Genomic Database from New York African Burial Ground Grave Soil Samples**
European Society for Human Genetics Conference
Copenhagen, Denmark

MEMBERSHIPS

- July 2019 American Association for Human Genetics (ASHG)
March 2019 American Association for Physical Anthropologists (AAPA)
November 2018 American Association for the Advancement of Science (AAAS)
April 2017 Sigma Xi Scientific Research Honor Society

EXTRACURRICULAR CLUBS AND GROUPS

1867 Basketball Club, SAFC (Student Activities Fees Committee), BDGSA (Biology Department Graduate Student Association), Afro Tech, DC

REFERENCES

Available upon request.