#### **CURRICULUM VITAE**

# Ballington L. Kinlock Jr., Ph.D.

#### CONTACT

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#### **EDUCATION**

2017	<b>Postdoctoral Studies. Public Health/Health Disparities</b> . Johns Hopkins Bloomberg School of Public Health, Hopkins Center for Health Disparities Solutions. Department of Health, Behavior and Society, Baltimore, MD
2014	<b>Ph.D. Biomedical Sciences</b> . Meharry Medical College, Center for AIDS Health Disparities Research, Department of Microbiology and Immunology, Nashville, TN
2014	<b>Certificate. Health Policy</b> . Meharry Medical College, Robert Wood Johnson Foundation Center for Health Policy. School of Graduate Studies and Research. Nashville, TN
2005	<b>B.Sc. Biology</b> . City University of New York-Medgar Evers College, Department of Biology Brooklyn, NY

### Additional Education/ Training

National Institute on Minority Health and Health Disparities (NIMHD) Translational Health Disparities Course Trainee: Integrating Principles of Science, Practice and Policy in Health Disparities Research. National Institutes of Health, Bethesda, MD. Summer 2015

**Health Policy Externship**. Johns Hopkins University. Bloomberg School of Public Health. Center for Health Disparities Solutions. Summer 2014

**Health Policy Externship**. Robert Wood Johnson Foundation Center for Health Policy at the University of New Mexico. Summer 2013

### PROFESSIONAL EXPERIENCE

- 2024- **Assistant Professor.** Department of Public and Allied Health. School of Community Health & Policy. Morgan State University. Baltimore, MD
- 2023- **Equitable Pathways Steering Committee Member.** Baltimore Social-Environmental Collaborative. Baltimore, MD

2023-2024	<b>Program Director.</b> Broadway East Community Association & Community Development Corporation. Baltimore, MD
2023-	Board Member. Baltimore Climate Resilience Coalition. Baltimore, MD
2021- 2022	Adjunct Professor. Department of Natural Sciences. Coppin State University. Baltimore, MD
2018-	Founder/Director. Scientific Research Consultants. Baltimore, MD
2017-2018	Assistant Professor. North Carolina Central University. Cancer Research Program. Julius L. Chambers Biomedical/Biotechnology Research Institute. Department of Biological & Biomedical Sciences, College of Arts and Sciences
2016-2017	<b>Postdoctoral Fellow.</b> Johns Hopkins University, Provost's Postdoctoral Diversity Fellowship. Program for Research on Men's Health. Department of Health, Behavior and Society
2014-2016	<b>Postdoctoral Fellow</b> . NIH Drug Dependence Epidemiology Training Program. Johns Hopkins Bloomberg School of Public Health, Department of Health, Behavior and Society
2015-2016	Adjunct Professor. Stevenson University, School of the Sciences, Department of Biology
2012-2013	Science Teaching Fellow. Vanderbilt University Science Center for Science Outreach
2005-2007	<b>Adjunct College Laboratory Technician</b> . Department of Biology. City University of New York-Medgar Evers College

### **TEACHING EXPERIENCE**

- "Principles of Public Health and Health Equity" Morgan State University- PUBH 504- Instructor Introduces the history of public health and health disparities. Students learn about the role of social determinants, such as race, gender, and socioeconomic status, in shaping the quality of services, the distribution of risk factors, and health outcomes
- "Human Body & Contemporary Health Issues" Stevenson University- BIO-104- Instructor

  Illustrates major principles of biology by studying the human body as an organism and the interaction between biology and health. Topics include the systems of the body and processes which produce, maintain and coordinate the person. These are studied in relation to disease, the external environment and technology.
- "Critical Issues in Health Disparities" Johns Hopkins University, Bloomberg School of Public Health- HBS 410.864.01 Co-instructor- How and why do health and healthcare disparities exist? What are solutions for health and healthcare disparities? Provides an opportunity for students, postdoctoral trainees, and faculty to present scientific papers from the current and/or classic health disparities literature. Emphasizes presentation skills and the ability to critically evaluate scientific papers.

<sup>&</sup>quot;General Biology 1: Cell Biology and Genetics" - Stevenson University - BIO-113 - Instructor

Emphasizes the molecular biology and biological principles that are common to all life. Topics covered relate to genetics and the physical and biochemical structure and function of cells and cell processes.

Science for Elementary and Middle School Students. As a Science Teaching Fellow through Vanderbilt University, I participated in an intensive workshop on pedagogy which prepared me to enter a Metro Nashville Public School System classroom to conduct weekly hands-on, inquiry-based experiments. Throughout the school year I aided in increasing students' knowledge of math and science concepts through interactive experiments while encouraging students to consider careers in math and science.

### **PUBLICATIONS**

Jia X, Shao Q, Chaudhry RA, **Kinlock BL**, Izban MG, Zhang H, Villalta F, Hildreth JE, Liu B. Medroxyprogesterone acetate (MPA) enhances HIV-1 accumulation and release in primary cervical epithelial cells by inhibiting lysosomal activity. Pathogens. 2021

**Kinlock BL**, Parker LJ, Bowie JV, Howard DL, LaVeist TA, Thorpe RJ. High Levels of Medical Mistrust are Associated with Low Quality of Life among Black and White Men with Prostate Cancer. Cancer Control Journal. 2017 January ;24(1):72-77

**Kinlock BL**, Parker LJ, Howard DL, Bowie JV, LaVeist TA, Thorpe RJ. Prevalence & Correlates of Depression among Black Men with Prostate Cancer. Ethnicity & Disease. 2017 December 7;27(4):429-436

**Kinlock BL**, Thorpe RJ, Howard DL, Bowie JV, Ross LE, Fakunle DO, et al. Racial Disparity in Time Between First Diagnosis and Initial Treatment of Prostate Cancer. Cancer Control. 2016 January 01;23(1):47-51.

Ross LE, Howard DL, Bowie JV, Thorpe RJ, **Kinlock BL**, Burt C, et al. Factors Associated with Men's Assessment of Prostate Cancer Treatment Choice. J Cancer Educ. 2016 June 01;31(2):301-7.

Bowie JV, Bell CN, Ewing A, **Kinlock BL**, Ezema A, Thorpe RJ, et al. Religious Coping and Types and Sources of Information Used in Making Prostate Cancer Treatment Decisions. Am J Mens Health. 2017 February 01:1557988317690977.

Parker LJ, **Kinlock BL**, Chisolm D, Furr-Holden D, Thorpe RJ. Association Between Any Major Discrimination and Current Cigarette Smoking Among Adult African American Men. Subst Use Misuse. 2016 October 14;51(12):1593-9.

Vargas ED, Sanchez GR, **Kinlock BL**. The Enhanced Self-Reported Health Outcome Observed in Hispanics/Latinos Who are Socially-Assigned as White is Dependent on Nativity. J Immigr Minor Health. 2015 December 01;17(6):1803-10.

**Kinlock BL**, Wang Y, Turner TM, Wang C, Liu B. Transcytosis of HIV-1 through vaginal epithelial cells is dependent on trafficking to the endocytic recycling pathway. PLoS One. 2014 May 15;9(5):e96760.

Wang C, Timmons CL, Shao Q, **Kinlock BL**, Turner TM, Iwamoto A, et al. GB virus type C E2 protein inhibits human immunodeficiency virus type 1 Gag assembly by downregulating human ADP-ribosylation factor 1. Oncotarget. 2015 December 22;6(41):43293-309.

Wang Y, **Kinlock BL**, Shao Q, Turner TM, Liu B. HIV-1 Vif inhibits G to A hypermutations catalyzed by virus-encapsidated APOBEC3G to maintain HIV-1 infectivity. Retrovirology. 2014 October 11;11:5.

Turner T, Shao Q, Wang W, Wang Y, Wang C, **Kinlock BL**, et al. Differential Contributions of Ubiquitin-Modified APOBEC3G Lysine Residues to HIV-1 Vif-Induced Degradation. J Mol Biol. 2016 August 28;428(17):3529-39.

Wang Z, Luo Y, Shao Q, **Kinlock BL**, Wang C, Hildreth JE, et al. Heat-stable molecule derived from Streptococcus cristatus induces APOBEC3 expression and inhibits HIV-1 replication. PLoS One. 2014 August 28;9(8):e106078.

## Abstracts/Meetings

**Ballington L. Kinlock**, Roland J. Thorpe. Medical Mistrust is Associated with a Reduction in Quality of Life of Prostate Cancer Patients. Gerontologist. Vol 56 P.590-591. 2016

**Ballington L. Kinlock**, Yudi Wang, Bindong Liu. Inhibition of Endosome Tubulation with Phospholipase A2 Antagonists Prevents Transport of HIV-1 across Mucosal Vaginal Epithelial Cells. Experimental Biology 2013, Boston Convention and Exposition Center, April 20-24

**Ballington L. Kinlock**, Yudi Wang, Bindong Liu. Passage of HIV-1 across mucosal vaginal epithelial cells is envelope independent, endosome tubulation dependent and is affected by the sex hormone progesterone. Keystone Immune Activation in HIV Infection: Basic Mechanisms and Clinical Implications. Breckenridge, Colorado. April 3-8, 2013

Tiffany Turner, Yudi Wang, **Ballington L. Kinlock** and Bindong Liu. Essential ubiquitin target on APOBEC3G for VIF mediated degradation. Cold Spring Harbor, NY 2014

**Ballington L. Kinlock**, Induction of APOBEC3G in oral epithelial cells leads to the reduction of HIV-1 transmission. Fifty-fifth Annual Student Research Day- "Recent Advances in Biomedical and Healthcare Research". Meharry Medical College, Nashville, TN. March 23, 2011

**Ballington L. Kinlock**, Z Wang, X Lin, JE Hildreth, Hua Xie, B Liu. Induction of APOBEC3G by a commensal, non-pathogenic oral cavity bacteria leads to inhibition of HIV-1 replication. 12<sup>th</sup>RCMI International Symposium on Health Disparities, Nashville, TN Dec 6-19, 2010

**Ballington L. Kinlock**, Ziqing Wang, Xinhua Lin, James EK. Hildreth, Hua Xie, Bindong Liu. *Streptococcus cristatus* induces APOBEC3 expression and inhibits HIV-1 replication. Keystone Symposia on Molecular and Cellular Biology: HIV Biology and Pathogenesis (A6), Santa Fe, New Mexico Jan 12 - 17, 2010

### **Talks**

Invisible Noose: The Biological Consequences of the Social Determinants of Health. Morgan State University. Department of Public and Allied Health. 3/2024

"37°C 5% CO<sup>2</sup>": The Biological Consequences of the Social Determinants of Health. Johns Hopkins University. Department of Biochemistry and Molecular Biology Seminar Series. 3/2019

Race Disparities in Prostate Cancer Disease Burden and Quality of Life: Findings from the Diagnosis and Decisions in Prostate Cancer Treatment Outcomes (DAD) Study. North Carolina Central University. Julius L. Chambers Biomedical/ Biotechnology Research Institute Seminar Series. 4/2017

Lingering Belief Among our Nation's Top Research/Clinical Scientists that Humans are subdivided into Biologically Distinct Races and that Racial Health Disparities is a Result of Genetics. Johns Hopkins University Bloomberg School of Public Health, Department of Mental Health. Drug Dependence Epidemiology Training Program Meeting. 2/2016

Past, Present, Future: Health disparities research serving as my guide as I journey across scientific disciplines. Johns Hopkins University Bloomberg School of Public Health, Department of Mental Health. Drug Dependence Epidemiology Training Program Meeting. 3/2015

Exploring the time between diagnosis and treatment in DAD prostate cancer study participants: Are there racial differences? Johns Hopkins School of Medicine. The Sidney Kimmel Comprehensive Cancer Center 8/2014

Vaginal Epithelial Cells Support HIV-1 Transmission via the Endocytic Recycling Pathway: The Initial Events in Female HIV-1 Acquisition. Department of Microbiology and Immune Response 11/2013

Mucosal vaginal epithelial cells: A gateway to systemic HIV-1 infection. Center for AIDS Health Disparities Research 8/2012

APOBEC3G and HIV-1 Transmission. Center for AIDS Health Disparities Research 6/2011 The Role of APOBEC3 in HIV-1 Transmission. Department of Microbiology and Immune Response 10/2010

### RESEARCH EXPERIENCE

### Current

As an interdisciplinary health scientist, my research interest transcends scientific discipline while being focused on racial health disparities. My current interest is centered around understanding the biological consequences of the social determinants of health. More specifically, using subjective measures and physiological markers of stress; I am interested in how poor environmental conditions impact stress levels and the role of stress in cancer onset and progression in people living in marginalized communities.

### **Postdoctoral Fellow**

Principal responsibilities include: (1) analyzing data from the Diagnosis and Decisions in Prostate Cancer Treatment Outcomes study. A cross-sectional study designed to examine factors that influence the selection of prostate cancer treatment modality, and explore race differences in disease burden, and quality of life. To date, analyzing data from this study revealed a racial disparity in wait time between diagnosis and treatment. We also discovered a link between higher medical mistrust and depression in men with prostate; (2) serving as co-PI and director for The Health Disparities Awareness, Attribution and views on Race Etiology Study. This study was designed to a) capture NIH funded scientist views on the causes for racial disparities in health and b) quantitatively asses NIH funded researchers understanding that race is a social construct not rooted in biology; (3) determine the association between discrimination and becoming a drug/heroin user in a sample of Baltimore

residents; **(4)** presenting results through manuscript writing, oral and poster presentations. August 2014- July 2017

### **Doctoral Candidate**

Principal responsibilities included: (1) development and execution of research projects. Dissertation research title: Transmission of HIV-1 through Vaginal Epithelial Cells Utilizes the Endocytic Recycling Pathway and is influenced by the Sex Hormone Progesterone; (2) established new techniques not previously used in the lab; (3) developed a new line of inquiry for the Liu lab and laid the foundation for HIV-1 transmission studies in the lab; (4) mentor rotation students and trained them on various laboratory techniques; (5) presenting results through manuscript writing, oral and poster presentations. October 2012- May 2014

### **Health Policy Extern**

Principal responsibilities included: (1) framed and developed the effects of nativity on socially assigned race and self-reported health manuscript; (2) lit review on socially assigned race; (3) collaborated on the drafting and submission of a RWJF at University of New Mexico (UNM) written proposal to the New Mexico (NM) Department of Health (DoH) providing evidence for the need of the socially assigned race module in their 2014 annual Behavioral Risk Factor Surveillance System (BRFSS) survey of NM residents; (4) represented RWJF at UNM during NM DoH planning meetings to lobby for the addition of the socially assigned race to their 2014 BRFSS survey. June 2013-May 2014

### **Graduate Assistant**

Principal responsibilities included: (1) completing the biomedical core curriculum; (2) rotated through the laboratories of Dr. Bindong Liu, Dr. Waldemar Popik and Dr. James Hildreth. I developed a protocol to study the effects of a non-pathogenic oral cavity bacteria on the induction of APOBEC3 expression in monocytes and macrophages and worked on the effects of cholesterol on HIV-1 transmission during my rotations (3) data analysis and presentations at local and national meetings. August 2007- October 2012

### NIH funded International Research Intern

Worked in the Nanjing Key Lab of genomics at Nanjing Medical University in Nanjing, China where my principal responsibilities included: (1) working on a breast cancer project that aimed to determine the effects of epirubicin hydrochloride and troglitazone combination treatment on the proliferation of breast cancer cells; (2) training in molecular biology techniques, MTT cell proliferation assay, flow cytometry and cell-line maintenance through proper tissue culture techniques; (3) training in cultural, linguistic, ethics, and other training pertinent to professionals engaged in scientific and public health research in today's multi-cultural workforce. May 2005- July 2005

# **American Museum of Natural History Research Intern**

National Science Foundation Research Experience for Undergraduates (REU) at the American Museum of Natural History Molecular and Systematic laboratory. As a part of the Bahamas Biocomplexity Project, I conducted genetic population research on threatened species from The Bahamas: Panulirus agrus, Cardisoma guanhumi and Gecarcinus lateralis which are important regional and international seafood products. Gained experience extracting DNA, running polymerase chain reactions (PCRs), and sequencing DNA from tissue samples collected from the Bahamas. Jan 2005- May 2005

### **Undergraduate Mentoring in Environmental Biology Trainee**

Principal responsibilities included: (1) conducting research on the campus of Medgar Evers College during the Fall and Spring semesters. Projects included a) analysis of soil samples from select location in and around Brooklyn, NY for anti-biotics producing bacteria b) analyzing local water samples for heavy metal contaminants; (2) conducting research during the summer months at the American Museum of Natural History where I worked on the isolation and sequencing of DNA from critically

endangered Right Whales (historical tissue samples were obtained from museums around Europe). Sep 2003- Jan 2005

# **GRANTS/ FELLOWSHIPS**

- Provost's Postdoctoral Diversity Fellowship (2016-2017)
- NIH funded Johns Hopkins T32 trainee- Drug Dependence Epidemiology Training Program (2014-2016)
- NIH funded Meharry Medical College Heart Lung and Blood T-32 trainee (2009-2014)
- Scientist in the Classroom Teaching Fellow Award- Vanderbilt University Center for Science Outreach (2013)
- Vanderbilt Institute for Clinical and Translational Research (VICTR) award. "The Effects of Progesterone on the Initial Events of HIV-1 Transmission". Grant number VR9637 (2014)
- Vanderbilt Institute for Clinical and Translational Research (VICTR) award. Involvement of "primary vaginal epithelial cells" in HIV-1 acquisition. Grant number VR2097 (2012)

#### **AWARDS**

- Inaugural recipient of a Johns Hopkins University, Provost's Postdoctoral Diversity Fellowship (PPDF).
   The goal of the PPDF program is to locate, promote, and nurture the outstanding work of diverse, early career postdoctoral scholars at Johns Hopkins. The program seeks to prepare fellowship recipients for faculty positions at Johns Hopkins or elsewhere, particularly in fields where there are at present fewer women or members of underrepresented minorities.
- American Society for Microbiology ABRCMS Judges' Travel Award for the 2015 ABRCMS in Seattle, Washington. Awarded October, 2015
- Selected to be a participant scholar for the 2015 NIMHD Translational Health Disparities Course:
   Integrating Principles of Science, Practice and Policy in Health Disparities Research that will take place
   August 3-14, 2015 in Bethesda, Maryland
- American Society for Microbiology ABRCMS Judges' Travel Award for the 2014 ABRCMS in San Antonio, Texas. Awarded October, 2014
- Dr. Stanley Evans Commemorative Award. Presented to Ballington Lloyd Kinlock In recognition of a graduating student who is committed to academic and scientific excellence. Awarded on May 16, 2014
- 57<sup>th</sup> Annual Meharry Medical College Student Research Day (March 2013) 1<sup>st</sup>place prize in the category for senior level biomedical PhD students
- Federation of American Societies for Experimental Biology program and travel award for the Leadership Development and Grant Writing Seminar Program for graduate students and postdocs (August 2010)
- 53<sup>th</sup> Annual Meharry Medical College Student Research Day (March 2009) 2<sup>nd</sup> place prize in the category for lower level biomedical PhD students
- Medgar Evers College Betty Shabazz Scholarship recipient- A one –year portable scholarship of \$7,500 to assist a graduating senior in pursing of full-time graduate and /or professional study
- Cum Laude BS in Biology Medgar Evers College 2005
- Collegiate Science and Technology Entrance Program (CSTEP) CUNY-Medgar Evers College 2003-2005

### PROFESSIONAL MEMBERSHIP

- Sigma Xi, The Scientific Research Society
- American Society of Microbiology (ASM)
- The American Association for the Advancement of Science (AAAS)

### PROFESSIONAL SERVICE

Invited Referee:

American Journal of Preventative Medicine Health Psychology American Journal of Men's Health Ethnicity & Disease

The Journal of Healthcare, Science and the Humanities

- Search Committee- North Carolina Central University. Julius L. Chambers Biomedical/Biotechnology Research Institute Research Scientist/ Assistant Professor position
- Coordinator- Hopkins Center for Health Disparities Solutions Journal Club (2014- 2016)
- Curriculum Committee- Meharry Medical College School of Graduate Studies and Research (2011-2014)
- Treasurer- Meharry Medical College Graduate Student Association (2010-2011)
- Poster Judge SNMA Region X Conference Research Symposium. November 16-17, 2012. Maxwell House Hotel, Nashville TN
- Science Fair Judge- Franklin Classical School (2010-2012)
- President of the Medgar Evers College Science Association (2003-2004)