

## CURRICULUM VITAE

KAYLIN MARIE WHITE, M.S.

Email: kaylin.white@emory.edu

Phone: 313-506-5933

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## RESEARCH INTERESTS

- *Social Epidemiology*
- *Maternal and Child Health & Reproductive Epidemiology*
- *Sleep Health*

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## EDUCATION

**PhD Student in Epidemiology** **2021 – Present**  
Emory University, Rollins School of Public Health, Department of Epidemiology | Atlanta, GA 30322

**M.S. in Pharmacology** **2017 - 2019**  
University of Michigan Medical School, Department of Pharmacology | Ann Arbor, MI 48109

- Thesis: *Voltage-Gated Sodium Channel  $\beta$  Subunits: A critical cell adhesion molecule in normal neuronal development* (Advisor: Dr. Lori Isom)

**B.S. in Biology, Minor in Environmental Health** **2013 - 2017**  
Spelman College | Atlanta, GA 30314

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## RESEARCH EXPERIENCE

**Research Assistantship** **Jan 2022 – Present**  
*Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA*  
Principle Investigator Dayna Johnson-Morgan, PhD  
Comparison of Self-Reported and Actigraphy-Measured Sleep Duration by Race/Ethnicity amongst Adolescents in Fragile Families Cohort

- Created study design and research plan
- Conducted statistical analysis of dataset

**Clinical Research Coordinator & Data Analyst** **Jan 2020 – August 2021**  
*MapHabit Incorporated*  
Assessing Improvements in Quality of Life of Individuals with ADRD and DS after Using the MHS  
Principal Investigator: Stuart Zola, PhD

- Designed research study to assess improvements in sleep health, independence, and quality of life after software-based behavioral intervention for individuals with Alzheimer's Disease and related dementias (ADRD) and children with Down syndrome (DS). The MapHabit System (MHS) is a visual-mapping software that taps into procedural memory and establishes or maintains routines with step-by-step visual and audio cues.
- Created study battery to measure research outcomes
- Collects survey data from research participants and conducts descriptive statistics on data prior to reporting to PI and collaborating organizations

**Research Assistant****Oct 2019 – Oct 2021***Department of Neurology, Division of Sleep Medicine, University of Michigan, Ann Arbor MI*Sleep Disturbance and Adverse Maternal and Child Outcomes Amongst Black Women

Faculty Advisors: Galit Levi Dunietz, PhD, MPH &amp; Louise M. O'Brien, PhD, M.S.

- Conducted a comprehensive review of the literature on sleep disturbances and perinatal outcomes
- Synthesized relevant findings and tabulated these data by perinatal outcomes; chronic hypertension, hypertensive disorders pregnancy, preterm delivery, and fetal growth restriction.
- Lead author; co-drafted the related manuscript titled: Burden of Sleep-Wake Disturbances in Black Pregnant Women (now submitted to a scientific journal)

**Graduate Research Assistant (M.S. Thesis Lab)****April 2018 – May 2019***Department of Pharmacology, University of Michigan Medical School, Ann Arbor, MI*Developing a cell adhesion assay to study SCN1B-Linked Dravet Syndrome Variants:

Faculty Advisor: Lori Isom, PhD

- Conducted literature review on cardiovascular and neurological effects of genetic variations in SCN1B, the gene that encodes for the  $\beta 1$  subunit, a cell adhesion molecule (CAM) of Voltage Gated Sodium Channels (VGSCs) in neurons and cardio myocytes
- Developed an *in vitro* cell adhesion assay utilizing confocal microscopy, vector cloning, and gene sequecy to investigate changes in CAM activity in DS-linked SCN1B variants in hopes to elucidate potential avenues for therapeutic intervention for the severe morbidities (i.e. ataxia, developmental delay, SUDEP) associated with the genetic variation
- Presented project proposal for M.S. thesis defense inclusive of literature findings and preliminary experimental outcomes

**Graduate Research Assistant (Semester Rotations)****July 2017 – April 2018***Department of Pharmacology University of Michigan Medical School, Ann Arbor, MI*Project #1: Blood Platelets and Cardiovascular Disease

Faculty Advisor: Dr. Michael Holinstat (Summer: July 2017 – Sep 2017)

- Conducted a project utilizing platelet aggregometry to investigate which I blood platelet signaling in for thrombosis and related cardiovascular diseases.
- Investigated the increased risk for vascular thrombotic disease and stroke in Black individuals by studying the racial differences in platelet aggregation through thrombin protease activated receptors (PARs)

Project #2: Insulin and Food Motivation in Metabolic Disorders:

Faculty Advisor: Dr. Carrie Ferrario (Fall: Sep 2017 – Dec 2017)

- Studied the effects of elevated insulin levels on AMPAR surface expression and insulin receptor expression in the brain centers of rats relevant to motivation and reward, specifically the nucleus accumbens (NAc).
- Handled animals, participated in rat brain dissections and conducted western blot analysis
- Conducted literature review of the underlying mechanisms of the neural interactions that occur that may promote metabolic disorders such as obesity and type II diabetes.

### Project #3: CB1 Receptors as a Potential Therapeutic Target for Depression

Faculty Advisor: Dr. Emily Jutkiewicz (Winter: Jan 2018 – April 2018)

- Studied the antidepressant-like actions of the Cannabinoid Receptor Type 1 (CB1) ligand, Rimonabant in a model of depression in Mice and subsequently studied locomotor activity changes in mice injected with cocaine, morphine, and the delta opioid receptor agonist, SNC-80
- Performed Forced Swim Test (FST), CPP, Mice Drug injections
- Conducted multivariate analyses and descriptive statistics on dose response data

### **Undergraduate Researcher**

**June 2016 – Aug 2016**

*Department of Toxicology, University of North Carolina at Chapel Hill, Chapel Hill, NC*

Faculty Advisor: Ilona Jaspers, PhD

#### Electronic Cigarette liquids effects on airways epithelial cells

- Examined the cytotoxic effects of six different electronic cigarette liquids and Furanol on cultured BEAS-2B bronchial epithelial cells.
- Conducted controlled cell exposures and ELISA analysis

### **Undergraduate Researcher**

**May 2015 – Aug 2015**

*Department of Pathobiology and Diagnostic Investigation, Michigan State University*

Faculty Advisor: Jack Harkema, PhD

#### Innate Lymphoid Cells in the Mediation of Type II Immunity in the Lungs of Mice Repeatedly Exposed to Ozone:

- Investigated the role of the innate lymphoid cell (ILC) with regards to acute and subacute mice exposure to the respiratory irritant, ozone.
- Obtained histology and microscopy data measuring the occurrence of mucus cell metaplasia and eosinophilic inflammation within mice model lung tissues.
- Lead author on abstract, poster, and oral presentations at several national conferences
- Co-authorship on a publication in *Toxicological Pathology*

## **WORK EXPERIENCE**

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### **Clinical Research Coordinator and Data Analyst**

**Jan 2020 – Present**

*MapHabit Inc. Atlanta, GA*

Principal Investigator / Advisor: Stuart Zola, PhD

- Examines improvements in sleep health, quality of life, and cognitive function after software-based behavioral intervention amongst individuals with Alzheimer's Disease and related Dementias or Down Syndrome
- Designs research studies for software-based behavioral intervention, provides operational and administrative support to research participants in compliance with institutional review board (IRB)
- Grant writing contributor to NIH Phase II SBIR Grant
- Conducts descriptive statistical analysis on datasets and reports data to PI and collaborating organizations

**Research and Development Scientist****Jun 2019 – Dec 2019***Functional Fluidics LLC, Detroit Medical Center*

Principal Investigator / Advisor: Patrick Hines, MD, PhD

- Conducted Membrane Fragility and Flow Adhesion Assays on blood samples from children experiencing Sick Cell Disease (SCD) related pain crises to monitor changes in blood and overall cardiovascular health.
- Conducted data analysis and descriptive statistics in accordance to planned analyses on all patient results in conjunction with contract research organizations seeking to develop SCD therapeutics.
- Managed large clinical datasets of medical records and blood laboratory safety within C.L.I.A. compliance

**Spelman College Writing Tutor****Jan 2014 – May 2017***Spelman College*

- Certified by the National Tutoring Association as a Collegiate-Level Writing Tutor
- Tutored students in the Atlanta University Center in writing in multiple disciplines across the liberal arts including the humanities, sciences, and in professional writing

**LEADERSHIP, SERVICE, AND COMMUNITY ENGAGEMENT**

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**Founder and Event Chair****Jan 2018 – May 2019***Diversity Equity and Inclusion (DEI) Task Force*

Office of Graduate and Post-Doctoral Studies at University of Michigan Medical School

- Hosted solution-oriented events and programming in collaboration with OGPS administration university officials to improve the culture of biomedical research academia with regards to racial, gender, ethnic, sexual orientation, disability/ability, and cultural equity.
- Created and established the organization's official constitution and by-laws
- Conducts all advertising and campus outreach related to the promotion of events and related programming

Skills: Project Management, Graphic Design & Advertising, Budgeting, Data Presentation, Leadership, Project Team Building

**Section President****Sep 2016 – May 2017***Spelman College Section of National Council of Negro Women (NCNW)**Faculty Advisor: Jane Smith, PhD*

- Supervised all committees and programming for the organization being the largest student organization of the Atlanta University Center of 200+ members with 14 executive board members.
- Skills: Project Management, Graphic Design & Advertising, Budgeting, Data Presentation, Leadership, Project Team Building

**Public Health Chair / Saving Ourselves Sisters (S.O.S.)  
& Bettering Our Brothers (B.O.B) Program Founder and Chair****Sep 2015 – May 2016***Spelman College Section of National Council of Negro Women (NCNW)**Faculty Advisor: Jane Smith, PhD*

- Created and lead community workshops and group discussions surrounding LGBTBT inclusive sexual health education, mental health, and self-advocacy
- Skills: Project Management, Budgeting, Event Planning, Project Communications, Leadership,

### Executive Board Member and GROW Trip Team Summer

Sep 2013 – May 2014

*GlobeMed, Spelman College Chapter, Atlanta, GA & LIFOC Kumasi, Ghana*

- Conducted sexual assault awareness and prevention workshops in elementary and middle schools around rural Kumasi, Ghana for 4-weeks.
- Raised funding in conjunction with US-AID and the National Headquarters of GlobeMed to sponsor this global health education project.

## PUBLICATIONS

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### Accepted

**K. White**, LJ Dunietz, DS Pitts, DA Kalmbach, LM O'Brien Burden of Sleep-Wake Disturbances in Black Pregnant Women.

### Published

Kumagai K, Lewandowski RP, Jackson-Humbles DN, Buglak N, Li N, **White K**, Van Dyken SJ, Wagner JG, Harkema JR. Innate Lymphoid Cells Mediate Pulmonary Eosinophilic Inflammation, Airway Mucous Cell Metaplasia, and Type 2 Immunity in Mice Exposed to Ozone. Toxicol Pathol. 2017 Aug;45(6):692-704. 2017 Sep 11. PMID: 28891433.

## PRESENTATIONS

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### British Sleep Society

2022

*Poster Title: Frequency of Obstructive Sleep Apnea in Black Compared to White Pregnant Women*  
 Authors: O'Brien LM, Lucchini M, Johns F, Dunietz GL, **White KM**, Kalmbach DA, Pitts DA

### 35<sup>th</sup> Annual Meeting of Associated Professional Sleep Societies, SLEEP

2021

Virtual  
*Poster Title: Burden of Sleep-Wake Disturbances in Non-Hispanic Black Pregnant Women*  
 Authors: **K. White**, LJ Dunietz, DS Pitts, DA Kalmbach, LM O'Brien

### Georgia Bio Innovation Summit

2020

Virtual, Atlanta, GA  
*Poster Title: Assessing Improvements in the Quality of Life of Parents of Children with Down Syndrome After Using MapHabit's Visual Mapping Software, Lead Author*

### 39<sup>th</sup> Annual Pharmacological Sciences and Bio-Related Chemistry Symposium

2019

University of Michigan, Ann Arbor  
*Poster Title: The Cell Adhesion Function of the B1 Subunit Of Voltage Gated Sodium Channels Is Essential For Normal Neuronal Development, Lead Author*

### 44<sup>th</sup> Annual Pharmacology Colloquium

2019

Michigan State University, East Lansing

Poster Title: *Developing a Cell Adhesion Assay for SCN1B-Linked Dravet Syndrome Variants*, Lead Author

**Annual Biomedical Research Conference for Minority Students (ABRCMS)** 2016  
Baltimore, MD  
Poster Title: *Investigating the Effect of Berry Flavored Electronic Cigarette Liquids on Airway Epithelial Cells*, Lead Author

**Summer Undergraduate Research Symposium** 2016  
University of North Carolina at Chapel Hill, Chapel Hill, NC  
Poster/ Oral Presentation Title: *Investigating the Effect of Berry Flavored Electronic Cigarette Liquids on Airway Epithelial Cells*, Lead Author

**Research Day at Spelman College** 2016  
Spelman College, Atlanta, GA  
Oral Presentation: *Innate Lymphoid Cells in the Mediation of Type II Immunity in the Lungs of Mice Repeatedly Exposed to Ozone*, Lead Author

**Society of Toxicology Meeting** 2016  
New Orleans, LA  
Platform Oral Presentation: *Innate Lymphoid Cells in the Mediation of Type II Immunity in the Lungs of Mice Repeatedly Exposed to Ozone*, Lead Author

**Annual Biomedical Research Conference for Minority Students (ABRCMS)** 2015  
Seattle, WA  
Poster Title: *Innate Lymphoid Cells in the Mediation of Type II Immunity in the Lungs of Mice Repeatedly Exposed to Ozone*, Lead Author

**NIH Merit Veterinary Scholar Symposium** 2015  
University of California Davis, Davis, CA  
Poster Title: *Innate Lymphoid Cells in the Mediation of Type II Immunity in the Lungs of Mice Repeatedly Exposed to Ozone*, Lead Author

**MID-SURE Poster Symposium** 2015  
Michigan State University, East Lansing, MI  
Poster Title: *Innate Lymphoid Cells in the Mediation of Type II Immunity in the Lungs of Mice Repeatedly Exposed to Ozone*, Lead Author

## **HONORS & AWARDS**

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### **University of Michigan**

- NIH T32 Pharmacological Sciences Training Grant Program (PSTP) Scholar 2018
- Rackham Merit Fellowship (RMF) Award 2017

### **Spelman College**

- Graduated Cum Laude 2016

- Beta Beta Beta Undergraduate Biological Honors Society **2015**
- Howard Hughes Medical Institute HHMI Undergraduate Research Award **2015**
- Alpha Lamda Delta First-Year Undergraduate Honors Society **2014**

**Society of Toxicology**

- Perry J. Gehring Society of Toxicology (SOT) Diversity Award **2016**
- Pfizer Society of Toxicology Undergraduate Travel Award **2016**

**Annual Biomedical Research Conference For Minority Students (ABRCMS)**

- Poster Presentation Award in Physiology **2015**

**PROFESSIONAL MEMBERSHIPS AND ORGANIZATIONS**

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Association of Clinical Research Professionals (ACRP)

Delta Sigma Theta Sorority Inc.

National Society of Black Engineers (NSBE)

Society of Toxicology

American Epilepsy Society (AES) Graduate Student Member

**SKILLS**

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**SOFTWARE & APPLICATIONS**

MS Office, REDCap, Prism for Biostatistics, Google Tools, Adobe Illustrator, Novice in R Studio