



# Frontiers in Environmental Science and Health

June 2-8, 2024

Morehouse School of Medicine

## June 2<sup>th</sup> Course Introduction (At Hotel)

- 4:45-5:15 pm *Welcome Remarks and Course Overview*  
Winston Thompson, PhD, Morehouse School of Medicine
- 5:15-6:00 pm Dinner (provided)
- 6:00-6:45 pm **Lecture:** *Health Disparities, Diversity and Inclusiveness Training*  
Walter Conwell, MD, Morehouse School of Medicine
- 6:45-7:30 pm **Lecture:** *Responsible Conduct in Research and Scientific Ethics*  
Jonathan K. Stiles, PhD, Morehouse School of Medicine
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## June 3<sup>th</sup> Obesity and Health Disparities

(All lectures will be held in the Pavilion 220/222 AB & Labs B244)

- 9:00-9:30 am **Opening Remarks**  
Dr. Rick Kittles, Senior VP for Research, Morehouse School of Medicine
- 9:30-10:00 am **Lecture:** *Can Genomic Advances Add Value to Public Health Promotion? The Case of Podoconiosis*  
Colleen McBride, PhD, Emory University
- 10:00-10:30 am Coffee break
- 10:30-11:00 am **Lecture:** *Dietary Patterns and Assisted Reproduction Outcomes*  
Audrey Gaskins, Sc.D., Emory University
- 11:00-11:30 am **Lab Pre-Lecture:** Measuring DNA methylation changes in sperm samples from rhesus macaque before and after irradiation therapy  
Chas Easley, PhD, University of Georgia
- 11:30-1:00 pm Lunch (provided)
- 1:00-6:00 pm **Lab Session:** Measuring DNA methylation changes in sperm samples from rhesus macaque before and after irradiation therapy

Chas Easley, PhD, University of Georgia, Beth Waters PhD Student,  
University of Georgia

6:00 pm Dinner on own

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**June 4<sup>th</sup>**      **Air Pollution Impacts on Human Health**  
**(All lectures will be held in the Pavilion 220/222 AB & Labs B244)**

9:00-9:30 am      **Lecture:** *Traffic Pollution, Health, and the Theory of Everything: Molecular Approaches for Characterizing Air Pollution Exposure and Response*  
Jeremy Sarnat, Sc.D., Emory University

9:30-10:00 am      **Lecture:** *Pollution Disparities, Cancer, and Adverse Birth Outcomes in Louisiana*  
Kimberly Terrell, PhD, Tulane University  
Gianna St. Julien, PhD, Tulane University

10:00-10:30 am      Coffee break

10:30-11:00 am      **Lecture:** *Household Air Pollution and Respiratory Disease: Intervention Trials and Tribulations*  
John McCracken, PhD, University of Georgia

11:00-11:30 am      **Lecture:** *Mapping the Single-Cell Omics Landscape: New Insights into Exposure and Health*  
Xin Hu, PhD, Emory University

11:30-12:30 pm      Lunch (provided)

12:30-1:00 pm      **Lab Pre-Lecture:** Single Cell Multiomics (RNAseq and ATACseq)  
Roja Kolluru, 10x Genomics

1:00-6:00 pm      **Lab Session:** Single Cell Multiomics (RNAseq and ATACseq)  
Roja Kolluru, 10x Genomics

6:00 pm Dinner on own

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**June 5<sup>th</sup>**      **Ubiquitous Pollutants and Lifestyle Choices and Their Impacts on Human Health**  
**(All lectures will be held in the Pavilion 220/222 AB & Labs B244)**

9:00-9:30 am      **Lecture:** *Use of High-resolution Metabolomics for the Identification of Metabolic Signals Associated with Ubiquitous Pollutants*

Zach Jerrell, PhD, Emory University

- 9:30-10:00 am **Lecture:** *In Vitro and In Vivo Techniques to Evaluate Neurotoxicity and Neurological Disease*  
Michael Caudle, PhD, Emory University Rollins School of Public Health
- 10:00-10:30 am Coffee break
- 10:30-11:00 am **Virtual Lecture:** *Impacts of THC use and male reproductive health*  
Jamie Lo, MD, Oregon Health Sciences University
- 11:00-11:30 am **Virtual Lecture:** *The effects of preconception and prenatal THC use*  
Jamie Lo, MD, Oregon Health Sciences University
- 11:30-12:30 pm Lunch (provided)
- 12:30-1:00 pm **Lab Pre-Lecture:** Exposure and toxicity  
Chas Easley, PhD, University of Georgia
- 1:00-6:00 pm **Lab Session:** Exposure and toxicity  
Chas Easley, PhD, University of Georgia, Beth Waters, PhD Student  
University of Georgia
- 6:00 pm Dinner on own
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**June 6<sup>th</sup>**

**Pollution Impacts on Human Health**

**(All lectures will be held in the Pavilion 220/222 AB & Labs B244)**

- 9:00-9:30 am **Lecture:** *Water Quality and Human Health: Exploring Water Quality to Eliminate Environmental Injustice and Health Disparities*  
Ethell Vereen, PhD, Morehouse
- 9:30-10:00 am **Lecture:** *Making Gender Visible in Global Water, Sanitation, and Hygiene (WASH) Research and Programming*  
Bethany Caruso, PhD, Emory University
- 10:00-10:30 am Coffee break
- 10:30-11:00 am **Lecture:** *Wastewater based epidemiology (WBE)*  
Carter Coleman, PhD Student, University of Georgia
- 11:00-12:00 pm **Keynote Address:** *Exposomics: pursuing environmental health sciences at an -omic scale*  
Gary Miller, PhD, Columbia University
- 12:00-1:00 pm Lunch (provided)
- 1:00 pm Free afternoon to explore Atlanta
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June 7<sup>th</sup>

**Maternal/Fetal Health and Lifetime Exposure Effects on Human Health**

**(All lectures will be held in the Pavilion 220/222 AB & Labs B244)**

- 9:00-9:45 am **Lecture:** *Environmental Exposures and Pathways to Adverse Pregnancy Outcomes in the Atlanta African American Maternal-Child Cohort*  
Anne Dunlop, MD, Emory University
- 9:45-10:30 am Coffee Break
- 10:30-11:15 am **Lecture:** *Soy isoflavones act as endocrine-disrupting chemicals in the male gonad*  
Benson Akingbemi, DVM, PhD Auburn University
- 11:15-12:30 pm Lunch (provided)
- 12:30-2:30 pm **Panel Discussion:** *Career planning and strategies for careers in Environmental Health Science, Mentorship Guidance in Career Development*  
Winston Thompson, Morehouse School of Medicine, Yvonne Maddox, President and CEO TA Thornton Foundation, Gerald Schatten, University of Pittsburgh, and Charles Easley, University of Georgia
- 6:00-8:00pm *Closing Ceremony Dinner (provided) at Hotel Certificate of Participation*  
Winston Thompson, PhD-Morehouse School of Medicine, Gerald Schatten, PhD-University of Pittsburgh, and Charles Easley, PhD-University of Georgia
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June 8<sup>th</sup>

**Depart**