# Lina Dimitrov

McGowan Award Ph.D. Student, Epidemiology First Year ARCS Scholar

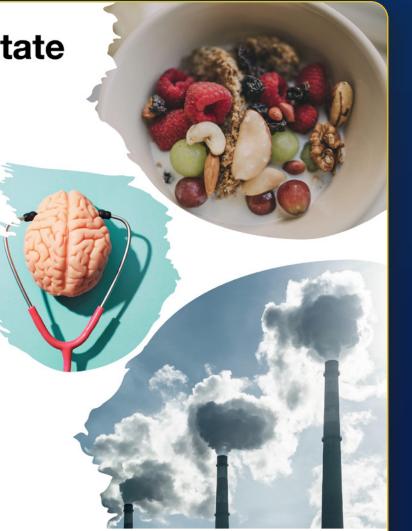


# EMORY UNIVERSITY

How does the environment we live in affect our risk for Alzheimer's disease? Understanding the neighborhood exposome

The research focuses on how the environmental and social exposures around us jointly impact neuropsychiatric outcomes. Currently, focused in particular on Alzheimer's disease and examining how the neighborhood exposome relates to early indicators of Alzheimer's disease.

Background and Current State of Alzheimer's Research



**Research Gaps and Aims** 



#### **Individual-level Risk Factors**

- Genetic predisposition
- Lifestyle factors; diet as a large focus

#### **Population-level Risk Factors**

Air pollution

• Socioeconomic disadvantage

#### **Disease Etiology**

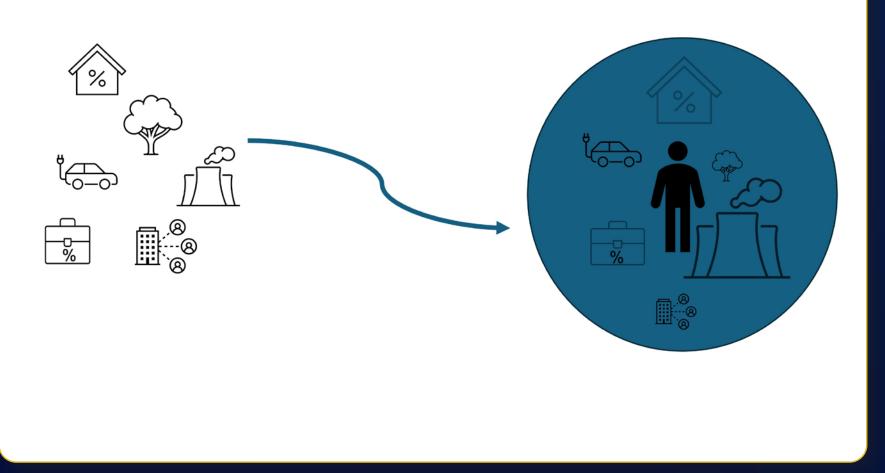
- Tau tangles and beta-amyloid plagues
- White matter burden
- Depression

Joint effects of environmental exposures and socioeconomic disadvantage?

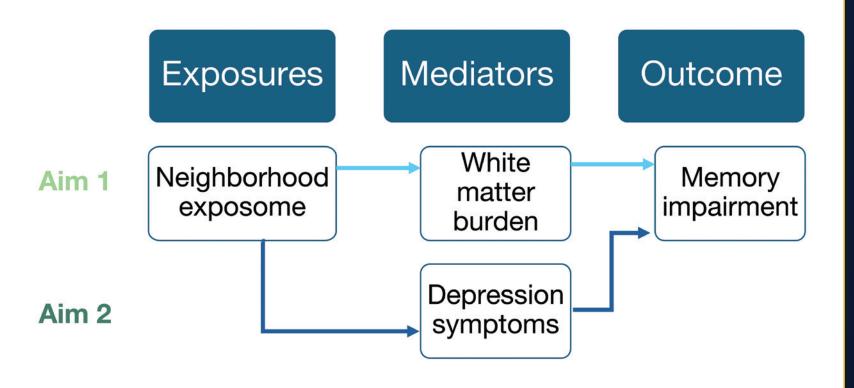
#### Effects of **populationlevel** factors in the context of **individual** risk factors?

Unidentified **mediating** pathways?

# Neighborhood Exposome as the Exposure of Interest



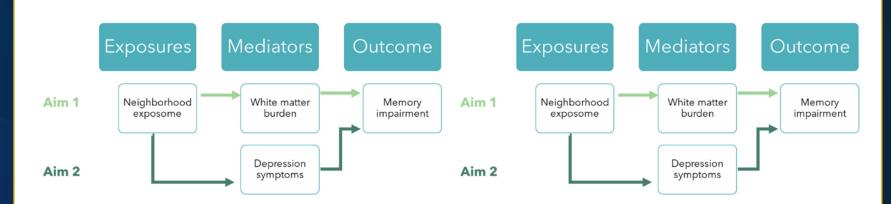
## **Overview of Analysis Plan and Aims**



### **Effect Measure Modification (EMM)**

How do these associations change based on dietary status and genetic predisposition?

EMM by dietary status EMM by genetic risk factors for AD



## Scholar-Awards Celebration

November 13, 2024



Igniting Innovation in Georgia •