



BIOINFORMATICS SEMINAR

MEDINA JACKSON-BROWNE

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UNIVERSITY OF DELAWARE

URINARY BIOMARKERS OF CHEMICAL EXPOSURES IN SCHOOL-AGED ASTHMATIC CHILDREN

Asthma affects 25 million Americans, particularly urban minority children. The role of allergens in asthma development and morbidity has been extensively studied, however little is known about the role environmental chemical exposures play in asthma development and morbidity in children. The primary aim of this study is to determine whether urinary biomarkers of environmental chemical exposures are associated with asthma morbidity in 152 children between ages 6-11 years with physician diagnosed asthma participating in an inner school-based asthma intervention study. We hypothesized that elevated urinary biomarkers of phthalates, phenols, parabens, and polycyclic aromatic hydrocarbons will be associated with increased asthma-related symptom days. Regression models were adjusted for sex, age, number of colds, household income, prescription control, race, BMI percentile, smoke exposure, and allergen sensitivity. Additionally, weighted quantile sum (WQS) regression was used to analyze each chemical class as well as a total mixture effect, controlling for the same covariates. Random subset WQS was used to analyze a mixture effect among metabolites with high confidence annotations.

BIOGRAPHY

Dr. Medina Jackson-Browne, PhD is an assistant professor in the Epidemiology Program at the University of Delaware. Previously, she was a postdoctoral research scholar in the Department of Epidemiology at the Brown University School of Public Health. Her primary research focus is understanding the effects of exposure to environmental chemicals, particularly during the pre- and perinatal periods, on the alteration of immune function and the development of asthma and allergic diseases in children. Dr. Jackson-Browne received her PhD in Environmental Health Sciences from the Mailman School of Public Health at Columbia University.



CBCB SEMINAR

3/7/2022

3:30-4:30PM

AP BioPharma

Room 140

(590 Avenue 1743)

or via ZOOM:

<https://udel.zoom.us/j/93068494454>

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