

***UMBC Department of Chemical, Biochemical and Environmental Engineering  
Seminar Series presents:***

**Dr. Kirsten Koehler**

**Johns Hopkins Bloomberg School of Public Health**

***Advancing Exposure Assessment in the 21st Century***

**Monday, November 7th, 2016**

**12:00pm—12:50pm**

**Engineering, Room 027**

**Research Project: Personal Exposure Assessment**

Human exposure to particulate matter air pollution is linked to increased mortality, exacerbation of asthma and COPD symptoms, decreased respiratory rate and lung function, and increased blood pressure and other cardiovascular disease risks.

Our exposure to environmental air pollution is involuntary and lasts from fetal development through every life stage. Most epidemiological research has focused on ambient air pollution, using data from fixed, outdoor air quality monitors to estimate the population's exposure and then correlate these area-wide exposures with disease. However, air pollutant concentrations vary temporally and spatially outdoors and these monitors do a poor job of estimating exposures of individuals or indoor exposures. This may be especially important given that American adults spend 60-90% of their time indoors and air pollution concentrations often exceed those measured outdoors due to indoor sources. Thus, there is a need to better understand human exposure to air pollution indoors and outdoors and as a function of location and source.

