DEPARTMENT OF ENVIRONMENTAL HEALTH

EH SPECIAL SEMINAR

Tuesday, July 30, 2013
Building 1, Room 1302
10:30 a.m.

"Early life environmental influence on epigenetics"

Carrie Breton, ScD

Assistant Professor of Preventive Medicine
Keck School of Medicine
University of Southern California

Dr. Breton received her bachelor's degree from Amherst College, her Master of Public Health degree from UCLA, and her doctorate from HSPH. She has strong training in epidemiologic methods, with a specific interest and focus on environmental health and epigenetics. She has conducted research focused on examining the interplay between genetic susceptibility and air pollutant exposures on lung function using data from several large cohorts of children in the USC Children's Health Study (CHS). Using data from the CHS, she found that polymorphisms in genes involved in glutathione synthesis and oxidative stress can affect lung function growth in children, and can potentially interact with environmental exposures such as prenatal tobacco smoke exposure or air pollution. She is currently an assistant professor in the Department of Preventive Medicine at USC's Keck School of Medicine. She is the PI of an NIEHS K01 award, and her future research plans include investigating the relationships between prenatal exposures to air pollution, epigenetic changes, and thickening of the arterial walls, an early marker of atherosclerosis. She has also researched the associations between air pollution and prenatal tobacco smoke exposure on changes in epigenetic marks such as DNA methylation and its association with cardiopulmonary health outcomes in children.