

**Maternal Infant-Child Health and Environment Research Symposium:  
"How Local Research can Influence Policy and Practice"**

Thursday, February 26<sup>th</sup>, 2009, 08:00-17:00 hrs  
Maple Leaf Room, Lister Hall, University of Alberta

**Speaker Bio-sketch:**



*Joseph D. Brain, PhD*

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Joseph D. Brain is the Cecil K. and Philip Drinker Professor of Environmental Physiology at the Harvard School of Public Health. He has two masters degrees from Harvard and received his doctoral degree there in 1966. He has been a faculty member at Harvard since 1969. Dr. Brain has published more than 200 journal articles and book chapters. He has just begun a 3 year appointment on the EPA's Clear Air Scientific Advisory Committee (CASAC).

Professor Brain's research emphasizes the body's responses to inhaled gases, particulates, and microbes. His studies extend from the deposition of inhaled particles to their clearance and health effects. One context of these studies is the pathogenesis and prevention of environmental and occupational lung disease. Of particular interest is characterizing the potential bioavailability and toxicity of new and complex materials such as nanoparticles and nanofibers.

Dr. Brain serves as the director of an NIEHS/EPA Center on Children and the Environment. It focuses on mothers and children in Northeastern Oklahoma who are exposed to metals by ingesting or inhaling mining wastes. Dr. Brain's project in that Center utilizes rodent models to study the pulmonary pharmacokinetics of divalent metals in the nose and lungs. These metals are given to weanling and pregnant rats. Thus, bioavailability during gestation and lactation is also being measured.

**Publications (past 5 years)**

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