



National Institute of Environmental Health Sciences (NIEHS) MMM Updates

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NIEHS MMM Program Updates

- Robust unsolicited portfolio includes environmental influences on fertility, preeclampsia, gestational diabetes, preterm birth, etc.
- NIEHS-funded contributions to this emerging research field
 - Pesticides associated with GDM in the Ag Health Study (Saldana, 2007, Diabetes Care)
 - Arsenic associated with impaired glucose tolerance during pregnancy (Ettinger, 2009, EHP)
- Environmental Influences during Windows of Susceptibility in Breast Cancer Risk
 - 6 Transdisciplinary U01s awarded in 2016
 - Includes pregnancy as a vulnerable window for exposure to air pollution, PAHs, and xenoestrogens
- Environmental Influences on Placental Origins of Development (ePOD) RFA
 - 6 R01s awarded in 2018
 - Animal/cell models and non-invasive human placenta tissues or biomarkers
 - Placental growth, development, and function

NIEHS MMM Future Research/Programs

- Few studies consider impacts on maternal health after birth from environmental exposures during pregnancy (e.g., breast cancer, cardiovascular disease)
- NIEHS Strategic Plan (2.0), 2018-2023
 - Theme 1 Advancing Environmental Health Sciences
 - Goal 2 Individual Susceptibility
- Pregnancy is a critical window for environmental exposures
 - Inhalation of bromine reduced survival of pregnant mice with pathological changes resembling preeclampsia, pulmonary injury, and cardiac injury (Lambert, 2017, *Hypertension*)

