Research priorities recommended by Heartland Study Science Advisory Board
Management Team provides final review and approval
Fiscal management by -- Franciscan Health Foundation

**TARGET HERBICIDES = Glyphosate, Dicamba, & 2,4-D**

**HOSPITALS**
- Franciscan Health Indianapolis, Indiana
- Gundersen Health System, La Crosse, WI
- Indiana University, Indianapolis, IN
- Additional Hospitals, TBD

**LABS**
- Centers for Disease Control, Atlanta, GA
- Ramazzini Institute, Bologna, Italy
- George Washington University, Washington, D.C.
- Others, TBD
- Boston College, Boston, MA

**RESEARCH GROUPS**
- Ramazzini Institute, Bologna, Italy
- George Washington University, Washington, D.C.
- Boston College, Boston, MA
- Others, TBD

**COLLABORATING SCIENTIFIC INSTITUTIONS**
Participating hospitals will enroll 2,000 mother-infant pairs (MIPs) over 6 years
Multiple urine samples will be collected from each MIP
Urine samples will be analyzed for levels of target herbicides

**SPONSORED SCIENCE**

**ANALYTICAL METHODS**
- Herbicide Levels in Amniotic Fluid
  Dr. John Fagan, Health Research Institute, Fairfield, IA

**BIOMONITORING**
- Analysis of Historic Urine Samples
  Dr. Jill Reiter, Indiana University School of Medicine

**EPIGENETICS**
- Epigenetic Markers of Herbicide Exposure
  Dr. Robin Mesnage & Dr. Michael Antoniou, King’s College, London

**THE HEARTLAND STUDY**
www.heartlandstudy.org

updated 9/17/2019