



## The Intrauterine Environment: Long-Term Consequences for Obesity and Metabolic Disease

### AGENDA

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#### Monday, September 26, 2005

7:30 a.m. Registration and Light Refreshments

**8:00 a.m. Maternal Obesity and Diabetes: Clinical Evidence for Long-Term Consequences in the Offspring**

8:00 a.m. Maternal Obesity: Short- and Long-Term Risks of Obesity for the Offspring  
*Patrick Catalano, MetroHealth Medical Center*

8:45 a.m. Pre- and Peri-Natal Origins of Obesity and Metabolic Disease: An Epidemiologic Perspective  
*Mathew W. Gillman, Harvard Medical School*

9:30 a.m. Coffee Break

10:00a.m. Long-Term Effects of Infant Feeding on Obesity, Growth, and Metabolic Disease  
*Michael Kramer, McGill University*

10:45 a.m. The Accelerator Hypothesis: Evidence that the Rising Incidence of Type-1 Diabetes, Like That of Type-2, May Be Driven by Insulin Resistance From Early Life  
*Terry Wilkin, Peninsula Medical School*

11:15 a.m. Panel Discussion: Human Studies: Where Do We Stand and What Can We Do?

12:15 p.m. Lunch (on your own)

**1:30 p.m. Animal Models of Maternal Obesity and Diabetes: Long-Term Consequences for Metabolic Disease in the Offspring**

1:30 p.m. Genetic and Perinatal Factors Which Promote Obesity and Metabolic Disease  
*Barry Levin, University of Medicine and Dentistry of New Jersey*

2:15 p.m. Developmental Programming of Metabolomic Syndrome: What Can We Learn From Rodent Models?  
*Lucilla Poston, King's College London*

3:00 p.m. Coffee Break

- 3:30 p.m.      Developmental Programming: Species, Gender, Window of Exposure, and Generational Effects  
*Peter Nathanielsz, University of Texas Health Science Center Medical School*
- 4:15 p.m.      Effects of Maternal Diet-Induced Obesity and Diabetes on the Development of Metabolic Systems in the Offspring: A Non-Human Primate Model  
*Kevin Grove, Oregon Health and Science University*
- 4:45 p.m.      Panel Discussion: Optimal Animal Models To Determine Mechanisms and Mediators
- 5:30 p.m.      Wine and Cheese Reception (*Cash Bar*)

## **Tuesday, September 27, 2005**

- 7:30 a.m.      Registration and Light Refreshments

### **8:00 a.m.      Developmental Plasticity of Neural Pathways Regulating Energy Balance**

- 8:00 a.m.      Leptin and Hypothalamic Development  
*Richard Simerly, Oregon Health and Science University*
- 8:45 a.m.      Perinatal Programming and "Functional Teratogenesis": A Neuro-Endocrine Perspective  
*Andreas Plagemann, Charite University of Medicine, Berlin*
- 9:30 a.m.      Coffee Break

### **10:00 a.m.      Food for Thought: Potential Mechanisms Mediating the Consequences of Maternal Obesity and Diabetes**

- 10:00 a.m.      Placental Programming: An Early Determinant of Neonatal Obesity  
*Sylive Hauguel de Mouzon, MetroHealth Medical Center*
- 10:45 a.m.      Maternal Obesity and the Intrauterine Development of Epigenotype  
*Robert Waterland, Children's Nutrition Research Center, Baylor College of Medicine*
- 11:30 a.m.      Effects of Maternal Obesity in Rats on Reproductive Outcome and Metabolism of Their Offspring in Adulthood: A Role for Glucocorticoids?  
*Barbara Woodside, Concordia University*
- 12:15 p.m.      Maternal Obesity and Birth Defects  
*Jim Mills, National Institute of Child Health and Human Development, National Institutes of Health*
- 12:45 p.m.      Final Panel Discussion: The Top 10 List for Research Objectives
- 1:30 p.m.      Lunch (on your own) and Adjournment

#### **Facilitators:**

Boyd Metzger, Northwestern University  
David Phillips, Medical Research Council Environmental Epidemiology Unit  
Rudi Leibel, Columbia University  
Jonathan Gitlin, Washington University School of Medicine  
Tamas Horvath, Yale University

Kent Thornburg, Oregon Health and Science University  
David Siscovick, University of Washington  
Wulf Palinski, University of California-San Diego  
Jacob Friedman, University of Colorado Health Center  
Larry Reynolds, North Dakota State University  
Jeffrey Flier, Harvard University