

Innovative Technologies for Longitudinal Birth Cohort Study Visit Assessments

Presentation Focus:

1. Brief description of technology
2. Current applications and results
3. Emerging trends and opportunities for longitudinal birth cohort studies

Agenda: (20 minute presentations, 10 minute discussion)

- 10:00 – 10:15 Interest, Expectations, and Application of Innovative Technology in the National Children’s Study [Dr. Steven Hirschfeld, NICHD]
- 10:15 – 10:45 Reality Mining and Computational Health Science [Dr. Sandy Pentland, MIT]
- 10:45 – 11:15 Personal Level Exposure Characterization for the National Children’s Study: Rationale, Approaches, and Viability [Dr. Charles Rodes, RTI]
- 11:15 – 11:45 Innovative Technologies for Improving Dietary Assessment [Mr. Rick Weiss, Viocare]
- 11:45 – 12:00 BREAK
- 12:00 – 12:30 Quantitative High-Throughput Screening (HTS) for Chemical Probe Development and Toxicology Testing [Dr. G. Sitta Sittampalam, NHGRI]
- 12:30 – 1:00 Microfluidic Platforms for Real-Time Analysis of Clinical and Environmental Samples [Dr. Anup Singh, Sandia National Laboratory]
- 1:00 – 1:30 Emerging trends in the measurement and analysis of psychosocial data. [Dr. Robert Kaplan, OBSSR]
- 1:30 - 2:00 Integrating Social and Physical Determinants into Children’s Environmental Health Research: Challenges of Transdisciplinary Research [Dr. Rosalind Wright, Harvard]
- 2:00 – 2:45 DISCUSSION
- 2:45 – 3:00 Summary and Adjournment [Dr. Steven Hirschfeld, NICHD]

Discussion Questions:

1. What are the major trends in innovative technology for application in longitudinal birth cohort studies?
2. What are the major logistical issues to consider such as participant compliance, privacy, data storage, and analysis?
3. How best can the National Children’s Study participate in developing and fostering introduction of new technologies into longitudinal birth cohort studies?
4. What are the major programs for development of innovative technologies that might be approached to collaborate with longitudinal birth cohort studies such as the National Children’s Study?