



# Children's Environmental Health: A Workshop on Future Priorities for Environmental Health Sciences

August 1-4, 2022, 11:00 am – 2:00 pm (ET)

## PURPOSE

This public event will explore the vulnerabilities of different life stages to environmental exposures, summarizing gaps in our knowledge of these vulnerabilities and the implications of the science to inform policy. Specifically, the workshop will explore how EPA could incorporate new research methods into its risk assessments, allowing the agency better understanding of environmental risks to children.

**Monday, August 1, 2022**

**Leveraging Current and Past Discoveries to Inform Future Action**

## SESSION 1 - WELCOME AND OPENING REMARKS

**Session Moderator: Germaine Buck Louis, Dean, College of Health & Human Services at George Mason University, Planning Committee Chair**

**11:00**      **Welcome**  
GERMAINE BUCK LOUIS

**11:15**      **Children's Environmental Health at the Environmental Protection Agency**  
JEANNE BRISKIN, DIRECTOR, ENVIRONMENTAL PROTECTION AGENCY OFFICE OF CHILDREN'S HEALTH PROTECTION

JANET MCCABE, (PRERECORDED COMMENTS), DEPUTY ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

**11:28**      **Questions and Answers with Jeanne Briskin**

**11:30**      **Keynote Address**  
**Critical Data Gaps and the Promise of New Methods**  
PHIL LANDRIGAN, DIRECTOR, GLOBAL PUBLIC HEALTH PROGRAM AND GLOBAL POLLUTION OBSERVATORY, SCHILLER INSTITUTE FOR INTEGRATED SCIENCE AND SOCIETY, BOSTON COLLEGE

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### SESSION 2 – INFORMING DECISION-MAKING: STATE OF THE SCIENCE AND CRITICAL GAPS

**Session Moderator: Mona Hanna-Attisha, Director of the Michigan State University and Hurley Children's Hospital Pediatric Public Health, Planning Committee Member**

**12:00      Why Addressing Environmental Threats to Children's Health Still Matters**

TRACEY WOODRUFF, PROFESSOR, UNIVERSITY OF CALIFORNIA SAN FRANCISCO

**12:20      Children's Environmental health, Research, and Civic Engagement at the Center for Climate Health and the Global Environment**

AARON BERNSTEIN, INTERIM DIRECTOR, CENTER FOR CLIMATE, HEALTH, AND THE GLOBAL ENVIRONMENT AT HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

**12:40      Heat and Child Health**

ZHIWEI XU, POSTDOCTORAL RESEARCH FELLOW, SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF QUEENSLAND

**1:00      Break**

**1:15      Panel Discussion: Critical Gaps that Hold Back Progress in Environmental Health Policy**

BRENDA ESKENAZI, DIRECTOR OF THE CENTER FOR ENVIRONMENTAL RESEARCH AND COMMUNITY HEALTH, UNIVERSITY OF CALIFORNIA BERKELEY

MARK MILLER, DIRECTOR, CHILDREN'S ENVIRONMENTAL HEALTH CENTER, CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

THOMAS BURKE, PROFESSOR EMERITUS, JOHNS HOPKINS UNIVERSITY, FORMER SCIENCE ADVISOR, ENVIRONMENTAL PROTECTION AGENCY

## **Tuesday, August 2, 2022**

### **Environmental Influences on Children's Health across the Lifespan and Generations**

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### SESSION 3 – LIFE COURSE AND GENERATIONAL EFFECTS OF EXPOSURES

**Session Moderator: Germaine Buck Louis**

**11:00      The Exposome and Health Equity**

PAUL JUAREZ, PROFESSOR AND DIRECTOR, HEALTH DISPARITIES RESEARCH CENTER OF EXCELLENCE, MEHARRY MEDICAL COLLEGE

**11:20      Biomarkers of Prenatal Exposure to Air Pollution and Children's Health and Development**

FREDERICA PERERA, PROFESSOR, ENVIRONMENTAL HEALTH SCIENCES, DIRECTOR, COLUMBIA CENTER FOR CHILDREN'S ENVIRONMENTAL HEALTH

**11:40      Testicular Cancer as a Late Symptom of Testicular Dysgenesis Syndrome**

NIELS ERIK SKAKKEBAEK, PROFESSOR, DEPARTMENT OF GROWTH AND REPRODUCTION, RIGSHOSPITALET AND UNIVERSITY OF COPENHAGEN

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- 12:00**      **Disentangling Heterogeneous Outcomes to Better Understand Environmental Impacts on Pregnancy and Child Health**  
KELLY FERGUSON, INVESTIGATOR, PERINATAL AND EARLY LIFE EPIDEMIOLOGY GROUP, NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES
- 12:20**      **An Environmental Biodynamics Approach to Develop Biomarkers of Autism Spectrum Disorder**  
MANISH ARORA, VICE CHAIR OF THE DEPARTMENT OF ENVIRONMENTAL MEDICINE AND PUBLIC HEALTH ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
- 12:40**      **Break**
- 1:00**      **Panel Discussion on Rethinking Exposures to Inform Decision-Making**  
GERMAINE M. BUCK LOUIS, MODERATOR  
  
PAUL JUAREZ, FEDERICA P. PERERA, NIELS ERIK SKAKKEBAEK, KELLY FERGUSON, MANISH ARORA
- 2:00**      **Adjourn**

### Wednesday, August 3, 2022 Harnessing Data for Decision Making

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#### SESSION 4 – STRATEGIES FOR USING DATA TO DELIVER PUBLIC HEALTH AND POLICY

**Session Moderator: Darryl B. Hood, Professor and Environmental Neuroscientist, The Ohio State University, Planning Committee Member**

- 11:00**      **Strategies for Using Data for Delivering Public Health**  
CHIRAG PATEL, ASSOCIATE PROFESSOR OF BIOMEDICAL INFORMATICS, HARVARD MEDICAL SCHOOL
- 11:20**      **Breakout Rooms**
- 1)      Alternative Animal Models**  
ROBYN TANGUAY, UNIVERSITY DISTINGUISHED PROFESSOR, ENVIRONMENTAL AND MOLECULAR TOXICOLOGY, OREGON STATE UNIVERSITY
- 2)      Cumulative Risk Assessment**  
LINDA BIRNBAUM, FORMER DIRECTOR NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES, NATIONAL TOXICOLOGY PROGRAM
- 3)      Biomarkers of Exposure**  
MARIE FORTIN, ASSOCIATE DIRECTOR, TOXICOLOGY, JAZZ PHARMACEUTICALS
- 12:40**      **Plenary Discussion on the Importance of Multiple Lines of Evidence**  
  
CHIRAG PATEL, ROBYN TANGUAY, MARIE FORTIN, LINDA BIRNBAUM
- 2:00**      **Adjourn**

**Thursday, August 4, 2022**  
**Balancing Prevention and Uncertainty**

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**SESSION 5 – CASE EXAMPLES OF SCIENCE INFORMING POLICY**

**Session Moderator: Nsedu Obot Witherspoon, Executive Director, Children's Environmental Health Network, Planning Committee Member**

- 11:00**      **Welcome**  
NSEDU OBOT WITHERSPOON, EXECUTIVE DIRECTOR, CHILDREN'S ENVIRONMENTAL HEALTH NETWORK, PLANNING COMMITTEE MEMBER
- 11:05**      **Minnesota Department of Health Case Examples**  
STEPHANIE YENDELL, SENIOR EPIDEMIOLOGY SUPERVISOR, MINNESOTA DEPARTMENT OF HEALTH
- 11:25**      **Five Years of Experience with New York State Children's Environmental Health Centers**  
MAIDA GALVEZ, PROFESSOR, DEPARTMENTS OF ENVIRONMENTAL MEDICINE AND PUBLIC HEALTH & PEDIATRICS, ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
- 11:45**      **Strategies to Improve Children's Environmental Health in King County, WA**  
SHIRLEE TAN, SENIOR TOXICOLOGIST FOR PUBLIC HEALTH, SEATTLE & KING COUNTY
- 12:05**      **Break**

**SESSION 6 – BALANCING UNCERTAINTY AND PREVENTION**

**Session Moderator: Heather Patisaul, Associate Dean for Research, Department of Biological Sciences, North Carolina State University, Planning Committee Member**

- 12:20**      **Panel Discussion on Different Approaches to Scientific Uncertainty**  
  
DAVID LEVINE, CO-FOUNDER AND PRESIDENT OF THE AMERICAN SUSTAINABLE BUSINESS COUNCIL AMERICAN SUSTAINABLE BUSINESS COUNCIL  
ALISON CONNOLLY, UNIVERSITY OF GALWAY (IRELAND)  
WENDY E. WAGNER, RICHARD DALE ENDOWED CHAIR OF LAW, UNIVERSITY OF TEXAS SCHOOL OF LAW
- 1:30**      **Closing Comments**  
NSEDU OBOT WITHERSPOON, PLANNING COMMITTEE MEMBER
- 2:00**      **Adjourn**