



Are We Poisoning Our Children?

How Chemicals in the Environment Affect Children's Health

Event Program

Monday, November 14, 2011 8:00 AM-4:30PM

California Endowment Conference Center

1111 Broadway Oakland CA



Discounted student registrations are made possible by sponsorship of the Jennifer and Brian Maxwell Endowed Chair.

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WELCOME LETTER

Dear Participants,

Welcome to “Are We Poisoning Our Children? How Chemicals in the Environment Affect Children’s Health” . We are thrilled that you have joined us today for this exciting event.

This conference will examine the chemicals in our day-to-day lives and their potential influence on children’s health. In addition, you will learn about how children are exposed to chemicals in the environment and how these exposures may serve as endocrine disruptors. We hope that the day provides you with new information and strategies for reducing toxins and chemicals in the environment. In addition, you will be given a chance to ask the experts—to learn about what we know and don’t know yet and how to make decisions that might affect you, your children or your community.

We wish to thank our funder and sponsors, the Maternal and Child Health Bureau, CERCH, the Center for Environmental Research and Children’s Health, and the School of Public Health. We also wish to thank the Jennifer and Brian Maxwell Endowed Chair for providing student scholarships to attend the event.

Finally, we thank each one of you for taking time out of your busy schedules to attend this conference. We hope that your day is filled with new insights and knowledge, and that you are able to expand your networks and webs of support for doing this work. Finally, we hope that you emerge from our time together renewed in your commitment and calling to improve the health of children.

Thank you,

Brenda Eskenazi, MA, PhD & Cheri Pies, MSW, DrPH

EVENT SPONSORS

We thank you for your support!



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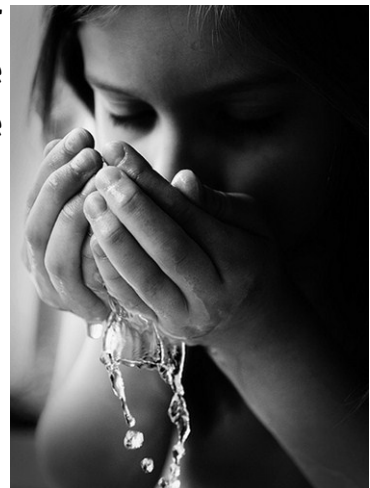
University of California, Berkeley

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OBJECTIVES FOR TODAY

By the end of this one-day continuing education program, participants will be able to:

- Name three toxic chemicals in our day-to-day lives and their influence on children's health.
- Describe two ways in which children are exposed to chemicals in the environment.
- List three ways in which exposure is measured.
- Describe three ways in which chemical serve as endocrine disruptors.
- List three strategies or approaches for talking with consumers about their role in reducing toxins and chemicals in the environment.



SCHEDULE FOR TODAY

8:00 – 8:30

Registration and Continental breakfast

8:30 – 8:45

Welcome and Introduction

Brenda Eskenazi, PhD

8:45 – 9:15

Bio-monitoring: How do we assess exposure?

Asa Bradman, MS, PhD

9:15 – 11:00

The Latest Research: Panel Presentation and Discussion

Moderator, Cheri Pies, MSW, DrPH,

Maternal Exposures and Children's Health: Examples from CHAMACOS: Kim Harley, PhD

Paternal exposures and Children's Health: Genetic Effects: Andy Wyrobek, PhD

Endocrine Disruption – Chemicals Mimicking Hormones: Jonathan Chevrier, PhD

Future Generations – Epigenetic Effects: Nina Holland, PhD

11:00 – 11:15

Break

11:15 – 12:00

Specific Topics of Interest:

What do we know, and what are the links to chemicals?

Moderator, Kim Harley

Childhood cancers:

Catherine Metayer, PhD

Puberty:

Gayle Windham, PhD

Neurodevelopment:

Brenda Eskenazi, PhD

SCHEDULE FOR TODAY

- 12:15 – 1:00 **Join us for Lunch with the “Experts”**
Participants will be given the opportunity to sign up to sit at a table to have lunch with one of the speakers
- 1:15 – 1:45 **Environment Justice and Children’s Health**
Rachel Morello-Frosch, PhD
- 1:45 – 3:00 **Global Environmental Threats to Children: Panel Discussion**
Moderator, Rachel Morello-Frosch, PhD
- Arsenic in Chile: Craig Steinmaus, MD
 DDT in Africa: Jonathan Chevrier, PhD
 Toxins from Stoves in Guatemala: Amanda Northcross, PhD
- 3:00 – 3:15 **Break**
- 3:15 – 4:15 **How Do We Protect Our Children in the Face of Uncertainty?**
Moderator, Brenda Eskenazi, PhD
- Arlene Blum, PhD
 Gina Solomon, MD, MPH
 Tracey Woodruff, MPH, PhD
 Amy Kyle, PhD
- 4:15 – 4:30 **Wrap-Up, Evaluation, Final Thoughts for the Day**
Brenda Eskenazi, PhD

FEATURED SPEAKERS

Arlene Blum, PhD

Arlene Blum PhD, biophysical chemist, author, and mountaineer is a visiting Scholar at UC Berkeley's Department of Chemistry; founder and executive director of the Green Science Policy Institute which brings government, industry, scientists and citizens groups together to change policy to protect health and environment. Her research and policy work has contributed to preventing the use toxic flame retardants in children's sleepwear and other consumer products worldwide. Blum has taught chemistry at U. C. Berkeley, Stanford University, and Wellesley College. She led the first American-and all-women's-ascent of Annapurna I, considered one of the world's most dangerous and difficult mountain, completed the Great Himalayan Traverse through Bhutan, Nepal, and India, and hiked the length of the European Alps with her baby daughter on her back. Her awards include selection by the UK Guardian as one of the world's 100 most inspiring women and National Women's History Project selection as one of 100 "Women Taking the Lead to Save Our Planet."

More information is available at: www.greensciencepolicy.org and www.arleneblum.com

Asa Bradman, MS, PhD

Asa Bradman is the Associate Director of the Center for Children's Environmental Health Research at UC Berkeley, Director of the Center's Exposure Assessment Study, and Co-Director of the CHAMACOS Laboratory Core. She is also the Co-Principal Investigator of the Kern County Location for the U.S. National Children's Study, a long-term birth cohort study, and Principal Investigator on a study examining environmental contaminants in childcare facilities. Asa is an Environmental Health Scientist specializing in assessing pregnant women and children's exposure to environmental agents.

Jonathan Chevrier, PhD

Dr. Chevrier uses traditional and causal inference methods to investigate the potential endocrine-disrupting and neurodevelopmental effects of exposure to persistent and nonpersistent chemicals such as polychlorinated biphenyls (PCBs), dichlorodiphenyl trichloroethane (DDT), bisphenol A (BPA), polybrominated diphenylether (PBDE) flame retardants, and dioxins. He also studies methods to address the Healthy Worker Effect in a cohort of autoworkers exposed to metalworking fluids.

FEATURED SPEAKERS

Brenda Eskenazi, PhD

Brenda Eskenazi is a Professor of Maternal and Child Health and Epidemiology at the University of California, Berkeley. She is a neuropsychologist and epidemiologist whose long-standing research interest has been the effects of toxicants including lead, solvents, environmental tobacco smoke, dioxin, and pesticides on human reproduction (both male and female) and child development. She is the Principal Investigator and Director of an NIH/EPA Center for Excellence in Children's Environmental Health Research (the "CHAMACOS" Project) which investigates the exposure pathways and health effects of pesticide exposure in farmworkers and their children and develops interventions to prevent future exposure. Dr. Eskenazi was also the co-PI on a grant to understanding the effects of US-Mexico migration on childhood overweight; she conducted research on food insecurity, obesity, and maternal perception of child weight. She is also the Principal Investigator on other NIEHS-funded projects on endocrine disruption: one based in Seveso Italy investigating the reproductive health of a cohort of women exposed to high levels of dioxin, and another examining the effects of persistent and nonpersistent endocrine-disruptors on neurodevelopment. She is also the PI of a grant from EPA examining the whether children with certain PON1 genotypes are at higher risk from exposure to pesticides.

Dr. Eskenazi is a fellow of the American College of Epidemiology and is on the editorial boards of the American Journal of Epidemiology and Environmental Health Perspectives. She has contributed widely to the field of children's environmental health, including the Surgeon Generals Report on Smoking and Womens Health, the World Health Organizations Tobacco-Free Initiatives report on Environmental Tobacco Smoke, and the United States-Vietnam Committee on the Human Health and Environmental Exposures of Agent Orange and Dioxin in Vietnam. She served on the State of California's Scientific Advisory Board for the Toxics Initiative (Proposition 65), which identifies chemicals as reproductive or developmental toxicants. Dr. Eskenazi has served on the Scientific Advisory Board of the Children's Health Environmental Coalition and on the Study Design Working Group of the National Children's Study. She was a member of the National Academy of Sciences Board on Children, Youth, and Families and is currently a member of the Expert Committee for the Stockholm Convention.

FEATURED SPEAKERS

Kim Harley, PhD

Kim Harley is an Associate Adjunct Professor of Maternal and Child Health at the University of California, Berkeley. She is a reproductive and perinatal epidemiologist whose research focuses on the association between endocrine disrupting chemicals and child development, including neurodevelopment, obesity, and onset of puberty. Dr. Harley is also Associate Director for Health Effects of UC Berkeley's Center for Environmental Research and Children's Health (CERCH) and coordinates the CHAMACOS Study of immigrant farmworker women and their children living in the Salinas Valley. She has published extensively on the effects of environmental chemical exposures to mothers and children living in a migrant farm worker community. Her work has focused on the reproductive and developmental effects of Bisphenol A, PBDEs, DDT, and organophosphate pesticides.

Nina Holland, PhD

Nina Holland is a Director of the School of Public Health Biorepository and the Children's Environmental Health Laboratory with expertise in molecular epidemiology, biomarkers of exposure and susceptibility, and human population genetics and epigenetics. She is also the co-director of the Biorepository Core and the project leader of the Epigenetics and Genomics Project for the Center for Children's Environmental Health Research (NIH/EPA)(B. Eskenazi, PI). She has conducted a number of investigations studying various biomarkers, genetic polymorphisms and their ability to modify the effects of environmental exposures (eg. pesticides, polybrominated diphenyl ethers (PBDEs), organochlorine chemicals, and other agents) on children's development and health. She has also examined effects of environmental exposures on genome integrity and currently, on epigenetics with specific focus on DNA methylation in children exposed to persistent organic pollutants. She has published more than 100 peer-reviewed papers and several book chapters and teaches a graduate course "Molecular and Genetic Epidemiology".

FEATURED SPEAKERS

Catherine Metayer, PhD

Catherine Metayer is a physician trained in France. She worked as an intern in departments of pediatrics and oncology where she developed an interest in cancer research. In 1998, she received her PhD in Epidemiology at Tulane University, New Orleans, LA, and focused her post-doctoral work on occupational exposures related to hematopoietic cancers in adults. She was a Visiting Scientist at the National Cancer Institute, Bethesda, expanding her research on secondary cancers following treatment for a primary cancer, and environmental risk factors of lung cancer in China. She is currently an Associate Adjunct Professor at the School of Public Health at UC Berkeley, working on environmental and genetic factors of childhood leukemia since 2003.

Rachel Morello-Frosch, BS, PhD

Rachel Morello-Frosch's research focuses on environmental health and environmental justice. She is particularly interested in addressing the double jeopardy faced by communities of color and the poor who experience high exposures to environmental hazards and who are more vulnerable to the toxic effects of pollution due to poverty, malnutrition, discrimination, and underlying health conditions. How do matters of race and class affect distributions of health risks in the United States? What are the causes and consequences of environmental disparities and health inequalities? How can research create "upstream" opportunities for intervention and prevention? She is also interested in evaluating the influence of community participation on environmental health research, science, regulation, and policy-making, as well as in developing methods to foster community-based participatory research.

Amanda Northcross

Dr. Northcross is an environmental engineer and chemist with an emphasis on air pollution. Her research is focused on developing novel, simple and low cost methods to measure exposures to airborne contaminants for health studies. She is currently working to quantify exposures as part of a longitudinal cookstove intervention study in the rural highlands of Guatemala funded by NIH and under the leadership of Dr. Kirk Smith and John Balmes. Her work has expanded from smoke exposures to chemical characterization of the smoke for compounds such as polyaromatic hydrocarbons and dioxins. On work targeted at the US and more specifically the California Central Valley, Dr. Northcross is developing a method to measure reactive oxidative species in particles. These are hypothesized to be one of the key actors in the mechanism of injury for airborne particles from many sources, including cigarette smoke, diesel smoke and wood smoke.

FEATURED SPEAKERS

Gina Solomon, MD, MPH

Gina Solomon is a Senior Scientist at the Natural Resources Defense Council (NRDC) and an Associate Clinical Professor of Medicine at the University of California at San Francisco (UCSF) where she is also the Director of the Occupational and Environmental Medicine Residency Program and the Associate Director of the UCSF Pediatric Environmental Health Specialty Unit. Her work has included over 40 scientific papers, book chapters, and reports on air pollution, pesticides, global warming, and other environmental and occupational threats to health. Dr. Solomon serves on the National Toxicology Program's Board of Scientific Counselors, a National Academy of Sciences committee on Exposure Assessment in the 21st Century, and the California Biomonitoring Scientific Guidance Panel. Dr. Solomon attended college at Brown University, medical school at Yale and did her postgraduate training in internal medicine, public health, and occupational and environmental medicine at Harvard.

Craig Steinmaus, MD, MPH

Dr. Craig Steinmaus is currently a Public Health Medical Officer and Epidemiologist in the Drinking Water Section of the California Environmental Health Agency's Office of Environmental Health Hazard Assessment (OEHHA). He is a board-certified Occupational and Environmental Physician with over 10 years of clinical experience. He is also an Associate Adjunct Professor at the University of California at Berkeley's (UCB) School of Public Health and an Assistant Adjunct Professor at the University of California at San Francisco's (UCSF) Department of Medicine. He is currently the Principle Investigator on two NIH-funded studies of arsenic exposure in northern Chile, and the Principle Investigator of an NIH-funded study of perchlorate exposure and pregnant women in San Diego, California. He is currently the Associate Director of the UCB Arsenic Health Effects Research Program, and teaches classes in epidemiology and causal inference at both UCB and UCSF. At OEHHA, his primary role is to investigate the health effects of environmental agents in susceptible groups, and evaluate methods for incorporating data on susceptible groups into risk assessments and public policy. He is the lead author of OEHHA's 2010 draft Public Health Goal for Perchlorate.

Gayle Windham, PhD

Dr. Windham is a research scientist with the California Department of public health where she serves as chief of the epidemiological surveillance unit in the environmental health investigations branch (EHIB). For over 25 years she has investigated the effects of environmental exposures on reproductive and children's health. Dr. Windham has been a co-investigator on the multi-site, longitudinal puberty studies within the Breast Cancer and the environment Research Program since its inception. Dr. Windham received an MSPH in epidemiology from UCLA and a PhD in epidemiology from UC Berkeley.

FEATURED SPEAKERS

Tracey Woodruff, PhD, MPH

Tracey Woodruff is an Associate Professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences and Philip R Lee Institute for Health Policy Studies at the University of California, San Francisco and the Director of the Program on Reproductive Health and the Environment. She has done extensive research and policy development on environmental health issues, with a particular emphasis on early-life development. Her research areas include evaluating prenatal exposures to environmental chemicals and related adverse pregnancy outcomes, and characterizing developmental risks. She has authored numerous scientific publications and has been quoted widely in the press, including USAToday, the San Francisco Chronicle, and Glamour magazine. She was previously at the US EPA, where she was a senior scientist and policy advisor in the Office of Policy, Economics, and Innovation. She is an Associate Editor of Environmental Health Perspectives.

Andy Wyrobeck, PhD

Life Sciences Division, Lawrence Berkeley National Laboratory, University of California, Berkeley, California.

Senior Staff Scientist, Genetics and Medical Biophysics

Deputy Department Head, Cancer and DNA Damage Response Department,
Past-president, Environmental Mutagen Society

Dr. Wyrobek received his Ph.D. in Medical Biophysics from the Ontario Cancer Institute, University of Toronto, Ontario, Canada, where he trained with Professor Robert Bruce in spermatogenesis, leading to the development of then widely-used mouse sperm shape abnormality assay for male reproductive toxicants. Dr. Wyrobek has ~170 publications related to his long standing interests in genetic and environmental factors that increase the risks of heritable mutations and those that increase the risks of fathering children with genetic diseases and chromosomally defects. Sperm assays for genomic damage promise to be an efficient approach to screening human exposures to prioritize risk factors of paternally-mediated effects on pregnancy loss, birth defects, and human heritable mutations. More recently, his research has turned toward understanding the molecular damage response signaling pathways induced after exposure to low dose ionizing radiation, to non-linear response mechanism of low-dose radiation induced breast cancer, and to radiation-induced damage to the brain and memory loss in aging.